

Current History

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AMERICAN SCHOOL COSTS

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Our August, 1972, issue is the last of a 3-issue symposium on financing elementary and secondary education in the United States. Articles will include:

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The Judiciary and Public School Financing

by RICHARD M. PIOUS, York University, Toronto

External and Internal Education Vouchers

by MARIO D. FANTINI, State University of New York at New Paltz

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by JOHN J. CALLAHAN, University of Virginia

Full Federal Funding: Educational Nightmare

by JOEL S. BERKE, the Brookings Institution

Pros and Cons of Public Funding for Catholic Schools

by ERNEST BARTELL, C.S.C., Stonehill College

Private Schools and the Public Interest

by OTTO F. KRAUSHAAR, Goucher College, Emeritus

The Independent Public Schools

by SUSAN S. EGAN, Committee of Community Schools, Inc.

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Current History

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In this second part of our 3-issue symposium on American school financing, seven articles explore the costs of education in America today. As our introductory article points out: "Even if the rising cost of school costs is stemmed, or if new sources of revenue are found, a major effort is needed to eliminate the vast inequities which pervade the nation's school resource distribution system."

American School Costs Compared

BY JAMES W. GUTHRIE

Associate Professor, School of Education, University of California at Berkeley

WHEN CONSIDERED AS A SYSTEM, American education is one of the three or four largest organized human activities in the world. In 1970, there were approximately 47 million public school students and more than 2 million teachers and administrators, a total of almost 50 million people. This is more of the United States population than is actively involved in any other single public service endeavor. The financial resources needed to support this system are equally large. In 1970, it cost more than \$40 billion to pay for salaries, supplies and other school operating expenses. This approximates 4.7 per cent of the Gross National Product. Both the absolute dollar level and the proportion of GNP rank education second only to national defense in terms of United States public expenditures.

The staggering numbers of students and the enormous absolute dollar magnitude of educational resources in the United States mask two serious problems. First, the costs of schooling have been increasing remarkably over the last decade. These cost increases are occurring at a faster clip than the annual rise in GNP and now threaten to overwhelm the outmoded and inequitable tax bases which support American schools. Second, there is a tremendous disparity in the distribution of school resources throughout the United States. These disparities occur almost regardless of the unit of analysis. When one considers average annual per pupil expenditures, some states far outspend others. Similarly, within states, some

school districts are funded in an overwhelmingly lavish fashion while others struggle to support a skeletal school program.

Even more surprising, although the data are not conclusive, there appear to be significant expenditure inequities even within individual school districts. In most instances, these dollar differentials tend to follow a discriminatory pattern. The high end of the public school spending curve coincides with relatively high measures of personal income. Low spending units, whether they are states, school districts, or individual schools, tend to be disproportionately populated with students from low income families.

In the sections that follow, we shall describe the above mentioned conditions in detail. We begin by discussing United States school expenditures relative to other nations and compare the growth of these school dollars over time. Following that, we shall document the range of expenditure disparities which occur at all levels of schooling throughout the United States.

INTERNATIONAL COMPARISONS

The United States probably spends more money for public education than any other nation on earth.¹ This is so, not only because we expend the most resources per pupil, but also because we have more pupils in school than do most nations. Table I depicts the proportion of school-age children actually enrolled in school. Here it can be seen that, although the remainder of the world is making progress toward universal education, the United States is still far out

¹ The absence of accurate information on Mainland China renders it impossible to make an absolute statement on this point.

TABLE I: DEVELOPMENT OF ENROLLMENT RATES BY LEVEL OF EDUCATION BETWEEN 1960-61 AND 1967-68

Major region	1960/61			1967/68		
	children of primary school age attending school at any level %	children of secondary school age attending school at any level %	Higher level enrollment per 100,000 inhabitants	children of primary school age attending school at any level %	children of secondary school age attending school at any level %	Third level enrollment per 100,000 inhabitants
World total	63	34	480	68	40	772
Africa	34	12	70	40	15	110
North America	98	90	1,875	98	92	3,356
Latin America	60	26	267	75	35	425
Asia (1)	50	22	216	55	30	395
Europe & U.S.S.R.	96	57	697	97	65	1,148
Oceania	95	28	650	95	30	1,191
Arab States	38	16	170	50	25	270

(1) Not including China (mainland), Democratic People's Republic of Korea and Democratic Republic of Viet-Nam.

Source: Unesco Office of Statistics.

in front. Whereas the world-wide average proportion of eligible children in school is 68 per cent for the elementary years and 40 per cent for the secondary years, comparable figures for the United States stand at 98 per cent and 92 per cent respectively.²

Supporting such enrollments utilizes a large proportion of the United States Gross National Product. As can be seen from Table II, except for Warsaw Pact Europe, North America (the United States) expends a higher percentage of its GNP on schools than does any other section of the world. In 1966, the world-wide average was 4.8 per cent and the North American figure was 4.7 per cent.

TABLE II: INTERNATIONAL COMPARISONS OF PUBLIC EXPENDITURES ON EDUCATION, CIRCA 1966

	Per Cent of GNP On Public Education
WORLD	4.8
NORTH AMERICA	4.7
NATO EUROPE	4.0
WARSAW PACT EUROPE	7.6
OTHER EUROPE	3.7
LATIN AMERICA	2.5
FAR EAST	3.7
AFRICA	2.9
OCEANIA	3.2
NEAR EAST	3.9
SOUTH ASIA	2.3

Adapted from a study made by the U. S. Arms Control and Disarmament Agency, November, 1968.

Despite the high levels of United States educational expenditures, they are still increasing. In fact,

² In that the figures in Table I are for all of North America, the United States and Canada, they tend to understate the United States situation slightly.

³ Senate Hearings, U. S. Senate Select Committee on Equal Educational Opportunity, Part 16D-3, p. 8356.

as we will illustrate, they are increasing faster than the rate of growth in GNP.

In the 25-year period between the end of World War II and the beginning of the 1970's, America's public school system experienced an unparalleled growth in enrollment and a vast expansion in the number of years of schooling expected for each student. Simultaneously, substantial efforts were made to improve the quality of school services and to raise the wages of teachers. Taken together, all these conditions had the understandable effect of pushing total school costs to a new high each year. Simply for the last decade alone, annual expenditures for public elementary and secondary schools have increased by 153 per cent. In absolute dollars, this was an increase from \$15.6 billion in 1959-1960 to \$39.5 billion in 1969-1970. (See Table III.)

This increase substantially outpaces growth in GNP. For the 1960's, school costs rose an average of 9.7 per cent per year. By comparison, GNP expanded only 6.8 per cent over the same time. Educational expenditures have increased 43 per cent faster than increases in the economy as a whole.

School costs have been increasing because of inflation and because of efforts to improve schooling.

Quality Improvements. In terms of "quality," it is seldom possible to demonstrate empirically that smaller classes will enhance learning. Nevertheless, the idea is intuitively appealing, and decreasing the number of people for which an individual classroom teacher is responsible has become one of the most widespread mechanisms used in the effort to improve schools. In the decade between 1959-1960 and 1969-1970, the number of pupils per instructional staff member was reduced for the United States as a whole from 24.7 to 20.5.³ Even using conservative esti-

TABLE III: TOTAL EXPENDITURES FOR PUBLIC ELEMENTARY AND SECONDARY SCHOOLS

School year	Amount (in thousands)	Percent increase over 1959-60	Percent in- crease over previous year
1	2	3	4
1959-60	\$15,613,255		
1960-61	16,807,934*	7.7%	7.7%
1961-62	18,373,339	17.7	9.3
1962-63	19,735,070*	26.4	7.4
1963-64	21,324,993	36.6	8.1
1964-65	23,029,742*	47.5	8.0
1965-66	26,248,026	68.1	14.0
1966-67	28,352,330*	81.6	8.0
1967-68	31,917,850*	104.4	12.6
1968-69	35,782,262*	129.2	12.1
1969-70	39,494,111*	153.0	10.4

* NEA Research Division estimates.

Figures for 1959-60 to 1965-66 from: U.S. Department of Health, Education, and Welfare, Office of Education. *Digest of Educational Statistics, 1968*. Washington, D.C.: Government Printing Office, 1968, p. 59.

Figures for 1966-67 forward from: National Education Association, Research Division. *Estimates of School Statistics, 1969-70*. Research Report 1968-R15. Washington, D.C.: the Association, 1969, p. 19.

Source: Financial Status of the Public Schools 1970, Committee on Educational Finance, National Education Association, Washington, D.C.

mates, this change added approximately \$2 billion a year to school costs, or a total of \$20 billion for the decade involved.

Inflation. At the same time that more teachers were being hired to teach the ever larger pupil population and to reduce class size, the cost per teacher was going up. As can be seen from Table IV, the average per pupil costs of classroom teachers' salaries increased from \$170 in 1957-1959 to \$426 in 1971-1972 (see page 38). This gain can also be seen in terms of percentages. In the years between 1952 and 1968, for example, the average salary for an instructional staff member increased by 128.6 per cent. These salary gains also amounted to substantial growth in teachers' purchasing power; during the period under discussion, the consumer price index rose by only 29.4 per cent.⁴ Teachers were earning more dollars and they were able to buy more with them.

If teachers' pay had been increasing at a pace equal to other occupational groups, the taxes levied to pay their salaries might not have attracted so much notice. However, between 1952 and 1968, teachers' pay gains were outstripping many other indicators of economic growth. For example, in the period under discussion, per capita personal income rose only 94.7 per cent and average earnings per employee increased only 94.1 per cent.⁵ These figures indicate that the economic condition of teachers was improving relative to other occupational categories.

As can be seen from Table IV, school expenditures

have increased since 1957 in almost every other category. The total effect of this trend is exhibited in Table V (see page 39). Witness the increases in net current school expenditures with specific calculations made to depict the impact of inflation. From this table it can be seen that of the total \$388 per pupil expenditure rise over the last 10 years, \$163 dollars has been contributed by inflation. The remaining \$225 increase represents real dollar gains for schooling. It is this last dollar amount that has made possible the previously described reductions in pupil-teacher ratios and real dollar gains in teacher salaries.

DISTRIBUTION COMPARISONS

In addition to the already described growing dollar deficit, a number of our nation's schools suffer from the ill effects of an outmoded, unproductive and patently unfair system for the generation and distribution of school revenues. This is true regardless of the spending unit—state, district or school.

Interstate. According to National Education Association statistics, the average per pupil expenditure in the United States for 1970-1971 was \$839.⁶ (See

(Continued on page 38)

James W. Guthrie has served as the assistant director of the Carnegie School Board Research Project at Stanford University, as a special assistant in the Office of the Secretary, HEW, and as deputy director of the New York State Education Commission. He is the author of *Schools and Inequality* (Cambridge: MIT Press, 1970), and *New Models for American Education* (Englewood Cliffs, N.J.: Prentice Hall, 1970).

⁴ *Ibid.*, p. 8359.

⁵ *Loc. cit.*

⁶ Data sources differ slightly with regard to school dollar figures because of the lack of a uniformly used definition of current and total school expenditures.

“... there is unquestionably a significant relationship between the resources available to schools and the excellence of education. In short, money builds schools, pays teachers and buys other school resources, and these are things that help children to learn. . . . In addition, reason would dictate that there must be fruitful ways to spend money to improve the quality of schooling.”

Toward Better Schools: The Relation of Dollars to Excellence

BY LARRY D. SINGELL

Associate Professor of Economics, University of Colorado

ON ALMOST ANY CRITERIA, education is an important part of the American social and economic system.* Nationally, resources used for formal education exceed seven per cent of the gross national product; thus formal education utilizes more resources than the agricultural sector of the United States economy. More than one-fourth of the total United States population is annually enrolled in schools, colleges, universities and other organizations of formal learning. The instructional staff of these schools and colleges is about equal to the number of people employed in the automobile, aircraft and electrical equipment industries combined.

The training provided in these schools is widely assumed to be an important and necessary part of the preparation for social and economic roles in the society. Hence, there is good reason for wanting formal education to be efficient and effective in training students. Yet, the authors of one of the most systematic and recent studies of the effectiveness of United States education were moved to conclude that the schools had little or no effect on what students learn that could be described as independent of the students'

social and economic background. Thus, this study, commonly known as the Coleman Report, concluded that:

Taking all these results together, one implication stands out above all: that schools bring little influence to bear upon a child's achievement that is independent of his background and general social context; and that this very lack of independent effect means that the inequalities imposed upon children by their home, neighborhood, and peer environment are carried along to become the inequalities with which they confront adult life at the end of school.¹

The findings of this study and others which show that the effects of home environment, neighborhood and peer group persist regardless of the expensiveness of education have convinced many interested laymen and educators that formal education cannot, or at least does not, make a difference in what students learn.² Hence, a view expressed frequently in current discussions on American education is that the relationship between dollars spent on education and excellence is far too weak to justify increased spending. Indeed, the increasing acceptance of the view may have something to do with the fact that between 1957 and 1965, on the average three-quarters of the school bond elections passed while in 1968-1969 only 43.6 per cent were approved by the voters.³

Clearly, if this contention is true, it has widespread implications. Perhaps even more important, if it is not true, and if teachers, school administrators and taxpayers act as if it is, it will have serious disabling consequences for American education and society.

THE PROBLEM OF EVALUATING EXCELLENCE

The central purpose of this article is to examine what can be said at this time regarding the relationship between dollars spent for education and educa-

* The author would like to thank Kenneth E. Boulding and Wesley J. Yordon for their helpful comments on an earlier draft of this paper. Any shortcomings are, of course, the author's responsibility.

¹ James S. Coleman, *et al.*, *Equality of Educational Opportunity* (Washington, D.C.: Government Printing Office, 1966), p. 325.

² For example, Thomas Ribich points out: "Regardless of the expensiveness of education, the mean score for low (social and economic) status boys in the twelfth grade is consistently less than 11—the mean score for all eleventh grade boys taking the Project Talent tests." Thomas E. Ribich, *Education and Poverty* (Washington, D.C.: The Brookings Institution, 1968), p. 86. It should be noted, however, that the test scores of low status boys did generally increase as expenditures increased.

³ For data on public school bond elections see *Standard Education Almanac*: 1971, editor-in-chief Alvin Renetzky (Los Angeles: Academic Media), Table 39, p. 78.

tional excellence. Before doing this, however, it is important to ask what it is that schools do, and how this is related to both student learning and dollar cost. It is important to understand that several problems exist which make evaluating the relationship between spending for education and educational excellence particularly difficult.

In principle, schools are expected to transform students in a number of ways—in knowledge, values, attitudes and skills, for example. School administrators use dollars, provided largely through taxes on property, to purchase the services of principals, teachers, blackboards, movie projectors, textbooks, and other resources that are believed to contribute to the transformation of students' values, knowledge and so on. Whatever the school does with these resources to enhance students' learning will be affected by a number of conditions.

The students' ability to perceive, store, and process information will of course be very important. It is widely accepted that this ability is determined in part by biological inheritance and in part by environment, of which the school is only one part. In the first five or six years of a child's life—a period which many experts believe is critical to the learning ability of the individual—the child typically has no contact with formal public education. When school attendance begins, the child typically attends less than half the days of the year, and in each day he spends more time with his peers and parents than he does with school involvements. Thus, in principle, what must be evaluated is the addition to knowledge, values and so on—the “value added” that is contributed by the use of school resources which represent only one part of the students' environment.

OUT-OF-SCHOOL ENVIRONMENT

The problem of evaluating this “value added” by school resources is further complicated by the fact that generally a student who attends a school with abundant resources also tends to have many other learning experiences outside the school and vice versa. That is, schools in middle or upper class neighborhoods tend to spend more on education—but their students also tend to have more highly educated parents, who try to impart knowledge, values, attitudes and so on at home. In addition, these parents are more inclined and able to send or take their children to boy or girl scout meetings, to the theater and to Europe, all of which affect knowledge as well as ability and motivation to learn. Thus, one difficult problem in practice is to separate learning contributed by the in- and out-of-school environments.

This problem could be solved in part if a well developed theory of learning and instruction existed. If we understood how the human nervous system “learns” to receive, retain and process information and

how instruction or teaching is related to this process, it might be easier to decide how much of what the student “knew” before he came to school and how much he “knew” after completion of school was the unique contribution of schooling. Unfortunately, our current knowledge about how students learn is inadequate for evaluating this. In the absence of such a theory of learning and instruction, educational researchers have tried to relate the activities of the school, or inputs of resources in the educational process, to some of the measures of output or the results of education which exist.

Some of these studies have produced very important results. Before examining and reviewing these, two potential pitfalls with this type of analysis should be noted. First, the measures of both the “inputs” and the “outputs” are frequently very limited. Most school systems keep very limited records on the results of the learning process. For example, student scores on various “standardized achievement tests” frequently measure a highly specialized type of learning, and as such represent only one part of what the school is trying to achieve. In addition, input measures like pupil-teacher ratios, the percentage of teachers with masters' degrees, and the number of volumes in the library are very rough measures of teacher and school inputs.

Second, even if we knew precisely what the inputs were, there is little agreement in society regarding the relative importance of the various goals or outputs of education. Suppose, for example, that one student demonstrates an understanding of the Pythagorean theorem or advanced calculus, but does not seem to value a democratic form of government or equal opportunity for all. Would society generally hold that he is more or less educated than a student who does not know the theorem or calculus but has been taught to hold these values? Alternatively, if teachers spent all their time and energies teaching mathematics and reading, and as a result their pupils performed well on these achievement tests, would one be safe in concluding that the school was providing a high quality education, or the best education possible? Further, some experts maintain that the existing tests which are measures of achievement have a considerable amount of cultural or social class bias which makes the relationship between test scores, school inputs and educational excellence even more difficult to interpret. What is being suggested here, in short, is that the results of the studies which evaluate the effectiveness of education, while useful, must be interpreted with considerable caution.

RESEARCH FINDINGS ON SCHOOL EFFECTIVENESS

As the size and cost of public education increased in the United States, educators and laymen both became concerned with making the enterprise more

efficient and effective. Thus, there is a long history of studies on the effectiveness of education in the United States.⁴ While we shall be most concerned with the recent research in this area, some historical reviewing may be useful because it provides perspective. The earliest efforts to evaluate school effectiveness were conducted primarily by professional educators. They attempted to relate the cost and quality of education by relating inputs most frequently measured by dollars spent and various measures of pupil performance. These studies, which are typified by the work of Paul R. Mort, generally concluded that school districts that spent more dollars per pupil were more effective in the sense that their students performed the best on standardized tests, attended college more frequently, or earned a higher income later in life.⁵ The results of these studies were used to make strong and convincing arguments for increased expenditures on education.

Unfortunately, these studies were characterized by one of the fundamental flaws described above: they took no, or at least inadequate, account of both the students' prior capabilities and the learning experiences provided outside the school. Scholarly criticism of these studies led to a new line of inquiry, conducted primarily by sociologists. The basic approach of this group was to correlate school inputs and student achievement after trying to adjust statistically for the social and economic background of the student. The findings of this group of researchers, typified by the work of James S. Coleman and his colleagues mentioned above, were to demonstrate that an insignificant amount of student achievement was explained by differences in school resources when this adjustment for social and economic status was made. While there have been several criticisms of the Coleman Report, the major criticism has been that a statistical technique was used which did not adequately separate out the independent effects or "knowledge added" by

the in-school and out-of-school environments.⁶ This very difficult problem led one expert in a recent conference sponsored by the Department of Health, Education and Welfare to conclude:

All we can say about this matter at the present time is the following: children from well-to-do, well educated families tend to get higher achievement scores; children having higher salaried teachers tend to get higher achievement scores; higher salaried teachers tend to be found in well-to-do school districts; there is insufficient evidence to determine how much of the higher achievement should be attributed to the home and how much to the teachers. These same observations apply as well to other teacher characteristics. Thus, with respect to experience, experienced teachers develop seniority and hence some choice about where they teach; they tend to gravitate to the comfortable suburbs; hence one finds good association between student achievement and teacher experience. How much of the higher achievement should be attributed to teacher experience? The present rudimentary state of our knowledge permits us to make no reasonable estimate of it.⁷

This difficulty has led to a large number of very recent research efforts to evaluate the "value added" of various school activities. While there is still a great deal of work to be done and the results must be interpreted with caution, a surprising amount of consistency can be found in these more recent studies of school effectiveness. While a complete review of these studies is beyond the scope of this paper, several examples may serve to illustrate the results obtained.

One interesting study which is important for its uniqueness was made possible when the Board of Education in Prince Edward County, Virginia, voted to close all public schools in the county to avoid the Supreme Court's racial desegregation decree. Thereafter, most white students attended a segregated private school. Black children and some poor whites either attended school in another county, attended some makeshift school or did not attend school at all. When a team of researchers at Michigan State University headed by Robert L. Green compared the achievement levels of the students of similar socioeconomic background, the students who attended the makeshift schools in the county performed significantly better than those who had foregone formal education altogether. Thus, this unfortunate occurrence provides some evidence that attending school can make a significant difference in learning achievement.⁸

In addition to demonstrating that schools make a difference in what students learn, there are more recent studies which have tried to determine what school inputs are important in changing the achievement of students. For example, in a study of 56 Boston elementary schools in 1968, Martin Katzman found that after adjusting for social and economic background of the student, the degree to which classrooms were "crowded" (number of classrooms with more than 35 students) and the ratio of students to

⁴ The review of the literature in this article draws on the excellent review and critique of these studies in *Do Teachers Make a Difference? A Report on Recent Research on Pupil Achievement*, U.S. Department of Health, Education and Welfare, Office of Education (Washington, D.C.: U.S. Government Printing Office, 1970), Ch. 2.

⁵ Paul R. Mort, "Cost Quality Relationships in Education," *Problems and Issues in Public School Finances*, edited by R. L. Johns and Edgar L. Morphet (New York: National Conference on Professors of Educational Administration, 1952).

⁶ For a detailed criticism, see the following two articles by Samuel S. Bowles and Henry M. Levin, "The Determinants of Scholastic Achievement: An Appraisal of Some Recent Findings," *Journal of Human Resources*, Volume III, No. 1 (Winter, 1968); and "More on Multicollinearity and the Effectiveness of Schools," *Journal of Human Resources*, Volume III, No. 5 (Summer, 1968).

⁷ *Do Teachers Make a Difference?* p. 4.

⁸ Robert L. Green, et al., "The Educational Status of Children in a District Without Public Schools," Bureau of Educational Research Services, College of Education, Michigan State University, U.S. Department of Health, Education and Welfare, Office of Education Cooperative Research Project, No. 2321 (1964).

staff members were important factors in determining students' achievement. Further, Katzman found that the percentage of permanently employed teachers and the percentage with masters' degrees also had positive effects on student reading achievement scores.⁹

In 1969, James Guthrie and his colleagues conducted a study of 5,284 sixth grade students from Michigan, both Negro and white. This study, by using a superior method for estimating the "value added" by school resources, obtained some very important findings. The study found 11 measures of school resource use to be significantly related to student achievement:¹⁰

School Facilities

- a. School site size
- b. Building age
- c. Per cent of makeshift classrooms

Instructional Materials

- a. Library volumes per student
- b. Supply of textbooks

Teacher Characteristics

- a. Verbal ability
- b. Experience
- c. Job satisfaction

Student Environment

- a. School size (enrollment)
- b. Classrooms per 1,000 students
- c. Per cent of students transferring

To summarize:

(1) The most significant resource affecting student performance is the quality of the professional staff of the school, particularly teachers. Teacher characteristics, including teaching experience, amount and type of academic preparation, job satisfaction and teacher verbal ability are strongly associated with pupil performance.

(2) The importance of good teachers is further strengthened by a significant relationship between variables which measure student access to the professional staff and student achievement. Many of the recent studies have found variables such as student-staff ratios, classroom size and

the length of the school year to have important effects on student performance.

(3) Physical facilities for instruction, such as measures of the size and adequacy of the school building and the availability and quality of instructional materials, are also positively related to student performance.

Since all the above factors translate into cost, expenditures per pupil are also significantly related to student performance or other measures of the excellence of education. Thus, Herbert J. Kiesling, in a study which examined data sampled from 70,000 seventh and eleventh grade students in 102 school districts in New York State, represents the typical finding when he observes that after adjusting for social and economic class differences:

The relationship of expenditures to performance in large urban districts is quite strong, with an additional \$100 of expenditure being associated with 2.6 months of [achievement] at the beginning of the expenditure range and 1.4 months at the end of the range.¹¹

Thus, on the average an additional expenditure of \$400 to \$700 is associated with a one-year change in achievement levels. However, Kiesling and others have shown that the cost may be two to three times this amount for a similar change in achievement for the average poor or disadvantaged student.

On the basis of these studies there can be no doubt that making more resources—dollars—available for education has the capability of making a significant difference in student achievement in particular and in educational excellence in general. Unfortunately, the results of these studies do not always provide accurate projections of how much of an improvement is possible or what mix of resources—for example, more teachers versus more instructional materials—will bring the greatest improvement in student learning.

THE BASIS OF CONCERN

Since the results of the current research on the effectiveness of education are generally promising, some explanation must be provided for the recent widespread concern regarding the perceived inefficiency of American education.

Expenditures on public elementary and secondary education have increased from about \$13 million in 1955 to about \$33 million in the 1967–1968 school year, or by approximately 154 per cent over this period.¹² While there are many factors behind this increase in expenditures, three fundamental ones can be distinguished: (1) the rapid increase in enrollment due mainly to increases in population and reduced "dropout" rates; (2) increases in cost, primarily increases in teacher and staff salaries; (3) increases in teachers, staff and instructional equipment *per pupil*.

The postwar increase in birth rates resulted in an enormous expansion in school enrollments, and simultaneously each student was encouraged to stay in

⁹ Martin T. Katzman, "Distribution and Production in a Big City Elementary School System," *Yale Economic Essays*, Vol. 8, No. 1 (Spring, 1968), pp. 201–256.

¹⁰ See *Do Schools Make a Difference*, Ch. 2.

¹¹ Herbert J. Kiesling, "Measuring a Local Government Service: A Study of School Districts in New York State," *Review of Economics and Statistics*, Vol. 49, No. 3 (August, 1967), pp. 356–367.

¹² All of the data referred to in the next few paragraphs may be found in the *Digest of Educational Statistics: 1970 Edition*, edited by Kenneth A. Simon and W. Vance Grant (Washington, D.C.: U.S. Government Printing Office, September, 1970). See in particular tables 32, 55, 74, 77.

school longer. Thus, between 1955 and the 1967–1968 school year, public school elementary and secondary enrollment increased by 47 per cent, which of course, required significant increases in expenditures. One method of examining expenditure increases that adjusts for these enrollment changes is to examine expenditures per student in average daily attendance. Expenditures measured in this way increased from \$338 per pupil in 1955 to \$786 per pupil in the 1967–1968 school year. Thus, expenditures per pupil over this period increased by almost 103 per cent.

It is difficult to say exactly how much of this increase in expenditure took place because of increased costs, or prices paid for schooling inputs, and how much represents an increase in real resources used—more teachers, staff, and so on, per pupil—by the school system. Since teacher salaries account for the major part (from 65 to 85 per cent) of the budget of school districts, this provides a good index of the cost of school resources. Between 1955 and the 1967–1968 school year, the salaries of elementary and secondary school teachers increased by 87 per cent and 75 per cent respectively. Thus, per pupil expenditures would have had to increase by from 75 to 87 per cent between 1955 and 1968 simply to hire the same teachers that were employed in 1955. Hence the majority of increased expenditures for education over this period were caused by increased enrollments and costs. One interesting indicator of the insignificant increase in real resources is illustrated by the fact that over this 12-year period, the average class size went from 26 to 24, a change of less than one per cent per year.

Nevertheless, it must be kept in mind that the actual increase in expenditures of 154 per cent is the one the taxpayer supporting education is likely to be most aware of. In the larger context, it is easy to understand why concern for the efficiency of education has increased. The rapid increases in cost have led many people to ask whether some innovations which increase the efficiency of the school system are not possible.¹³ Indeed, our basic model for teaching and instruction is at least 4,000 years old, and generally technical improvements have been very rapid in other sectors of the economy.

Several other recent developments that are primarily concerned with expenditure for education must be mentioned briefly. The first is a growing concern with the gross inequalities in education expenditures. Several studies referred to previously have shown that expenditures for students from lower social and economic neighborhoods are significantly less than expenditures for middle or upper class students. Therefore, the inequalities that exist in the out-of-

school environment—the home, the neighborhood—are increased as a result of the taxing and spending policies of school districts. This has raised concern with respect not only to the efficiency of educational expenditures but to the role of schools in equalizing opportunity.

A second source of concern with expenditures for education arises because these expenditures are financed largely out of property tax revenues. This tends to generate a unique concern with regard to government efficiency, because education is the only government activity which requires the direct approval of the public for increased expenditure. It is very likely that if the American public had to vote increased taxes for military spending, rocket research or welfare payments directly, concern with efficiency in these areas would also become more intense.

CONCLUSIONS

In conclusion, there is unquestionably a significant relationship between the resources available to schools and the excellence of education. In short, money builds schools, pays teachers and buys other school resources, and these are things that help children learn. This is, of course, part of the reason why, when parents are free to choose, they generally choose the higher expenditure districts or schools for their children. In addition, reason would dictate that there must be fruitful ways to spend money to improve the quality of schooling.

Unfortunately, the results of the studies, while useful, do not provide adequate information about how to do this more efficiently, and there are several important areas where further investigation is necessary. Further evaluation of the process of learning and instruction as well as of the goals of education is essential before we can be sure how efficiently the resources available to education are used. To put the matter very simply, we do not know at present how children learn, exactly what they are learning or what they "ought" to learn, and until we do we cannot possibly spend money for education in the most effective way.

In the final analysis, of course, the relationship between dollars and excellence will depend on the answer to the question: excellence for what? The answer may be the most difficult issue facing the educational industry at present. Clearly, the goals for education in a reasonably affluent society must go beyond the three R's which have been measured in

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¹³ See the discussion in *Innovations in Education: New Directions for the American School* (New York: Committee for Economic Development, July, 1968), p. 25.

“... unless drastic changes are made in public school funding and present school staffing patterns, the only alternative to a ‘vast army of unemployed teachers’ will be to cut down on the number educated for a teaching career. The existing supply of teachers is bound to have an effect on salary policy.”

School Professional Salary Costs in Perspective: 1800-1971

BY MAURICE A. LOHMAN

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THE RESULTS OF A RECENT Gallup poll indicate that the major problem facing the public schools in the 1970's is how to pay for them. The final report of the President's Commission on School Finance, The National Educational Finance Program and many state studies such as those made by the Fleischmann Commission in New York and the Citizens Commission on Government in Maryland all support this finding.

Nearly \$50 billion is spent annually to support public elementary and secondary schools. Professional salaries account for 58 per cent of this total. Add the cost of retirement and fringe benefits and the figure rises to 70 per cent. Educational supplies, administration, capital outlay, debt service, operation and maintenance of plant and transportation of pupils taken all together represent only about 30 per cent of the educational budget.

Even though the cost of public education varies considerably among geographical regions, states and local school districts, the same percentage breakdowns appear to hold. When analyzed, cost differentials are primarily a function of professional salaries. Any change in teachers' and administrators' salaries has a pronounced effect on the cost of education.

Since the end of World War II, educational costs have doubled each decade. Parallel to this rise, the nation has experienced a period of rising costs in all areas. Wage indexes in general have risen at a more rapid rate than cost indexes, and the nation's standard of living has experienced a continuous increase. This

increase in standard of living coupled with three decades of general inflation and higher public school enrollments have all contributed to the present high costs of public school education. The United States Office of Education reported that in the period 1950-1962 salaries paid to classroom teachers and other instructional staff rose faster than did wages and salaries paid other employees.¹

Better educational offerings also account for greater costs. Since the turn of the century, services have been expanded, preparation and selection of teachers have been upgraded and a larger number of pupils have been educated and retained for a longer period of time. These improvements have resulted in a professional staff that today has an average of 16 or more years of schooling, as compared with 8 years or less in 1900. In addition, today's staff is more widely deployed, with a variety of specialists intended to enhance the effectiveness of the classroom teacher.

Thus, when we discuss the cost of education we are basically talking about professional salaries. Prior to 1950, the bulk of the payment to professional staffs was in the form of direct wages. However, with the rise of collective negotiations in the 1960's, retirement and fringe benefits began to emerge as a growing segment of personnel costs. In 1962, Jack Kleinmann published *Fringe Benefits for Public School Personnel*, in which he attempted to place dollar values on various perquisites.² In 1964, Leslie Wilson conducted a national survey of these benefits and concluded that they represented 13.1 per cent of average professional salaries.³ Current estimates show these benefits as making up about 12 per cent of the entire educational budget. In 1950, they accounted for between 6 and 7 per cent; prior to 1930 it is difficult to find reference to them at all.

While historically the United States has made a

¹ U.S. Department of Health, Education and Welfare, *Statistics of State School Systems*, 1961-62, p. 29.

² Jack H. Kleinmann, *Fringe Benefits for Public School Personnel* (New York: Bureau of Publications, Teachers College, Columbia, 1962), 178 pp.

³ Leslie A. Wilson, *The Dollar Value of Fringe Benefits for Teachers* (New York: The Institute of Administrative Research, Teachers College, Columbia, 1964), 65 pp.

commitment for equal educational opportunity for all, financial commitments have not kept pace. The early settlers brought with them the educational systems of their mother countries. The Spanish imported a system of church-supported education, the Dutch, a system of open private schools supported by public taxation, the French, private schools, and the English, private and charity supported schools. When the Constitutional Convention of 1787 left education to the states, only Massachusetts, New Hampshire and Vermont offered any system of tax-supported education. In 1795, New York adopted an act authorizing a state payment of about two-thirds of the teacher's salary, and in 1812 a new law was passed which enabled local districts to levy their own taxes. By 1890, all of the states had adopted some form of tax-supported free public schools. It is not possible to find reliable references to teacher salaries prior to the establishment of state departments of education in the 1900's.

In 1955, Beardsly Ruml and Sidney Tickton conducted a historical study of teachers' and administrators' salaries dating back to 1904.⁴ In 1961, Tickton updated the report to 1959.⁵ They attempted to examine and interpret available statistical information bearing on the changes in the economic status of the teaching profession since 1904 and to compare those changes with changes in other professions and occupations. In order to make comparisons they did not look at the number of dollars received, but at the material living that those dollars would buy, after taxes. Taking the teaching profession as a whole, they found little or no *absolute* deterioration except at the top. In fact, all public school teachers, other than those in the large cities, had gained, and the large city teachers had held their own. However, serious absolute losses had occurred in the compensation of educational administrators at all levels.

When educational salaries were compared to salaries and wages in other industries, there was a marked deterioration in relative economic position. Relatively, salaries in the field of education rose less than salaries in other occupations and industries.

Since 1964, the N.E.A. Research Division has published and compared the average starting salaries of

classroom teachers with those in private industry, using figures reported by Frank S. Endicott, Director of Placement at Northwestern University. Average starting salaries of classroom teachers compare poorly with starting salaries offered bachelor's degree graduates by approximately 200 companies located throughout the United States.⁶

REGIONAL DIFFERENCES

The cost of education varies considerably from region to region across the United States and between districts within a state as evidenced in the recent *Serrano v. Priest* decision in California.* These cost differentials are primarily a function of salary. In 1970-1971, average professional salaries ranged from a maximum of \$14,025 in Alaska and \$12,000 in New York to a low of \$6,841 in Arkansas and \$6,173 in Mississippi.

It has long since been demonstrated that most state aid programs have assumed a state level of sharing far below the present current expenses of education. This disparity has meant that a district was forced to use its additional property tax resources to exceed the state level of sharing. Some districts, because of high taxable wealth, have found this relatively easy while others have found it virtually impossible, even with an excessive tax rate. Many current studies are addressing themselves to this problem and are proposing equal expenditures for all districts within a state boundary.

A. D. Swanson, however, has questioned the premise that equal staff salaries buy equal educational quality.⁷ He investigated two possible causes of salary variation: (1) regional differences in standard of living and (2) regional differences in cost of living. He found negligible variation in the cost of living, but wide differences in the standard of living as measured by disposable personal income. He concluded that it did not appear to be the price which teachers must pay for consumer goods that determines the salaries that boards must pay in a given region. Rather it was the quality, number and variety of consumer goods and services that teachers *must* purchase in the community in which they live in order to maintain an acceptable social position.

These problems will be resolved in the state legislatures and possibly in the courts. In the meantime, the emergence of collective bargaining has done much to narrow the differences in salary among districts. The President's Commission on School Finance has recommended the use of federal funds more nearly to equalize resources among the states when the scope of the problem or the achievement of a solution is beyond the financial capacity of the states.⁸

FACTORS AFFECTING TEACHER SALARIES

Prior to 1900, teacher salaries were primarily de-

* 5 Calif. 3rd 584; 96 Cal. Rptr. 601. For excerpts from this decision, see pp. 28ff. of this issue.

⁴ Beardsly Ruml and Sidney G. Tickton, *Teaching Salaries Then and Now*, Bulletin No. 1 (New York: The Fund for the Advancement of Education, October, 1965), 93 pp.

⁵ Sidney G. Tickton, *Teaching Salaries Then and Now, A Second Look* (New York: The Fund for the Advancement of Education, May, 1961), 45 pp.

⁶ See N.E.A. Committee on School Finance, *Financial Status of the Public Schools, 1971* (Washington, D. C., 1972), Table 12.

⁷ A. D. Swanson, *Effective Administration Strategy* (New York: Institute of Administrative Research, 1961).

⁸ President's Commission on School Finance, *Schools, People & Money, Final Report* (Washington, D. C., U.S. Govt. Printing Office, 1972).

pendent upon supply and demand. There were wide discrepancies between salaries paid in the large city schools and those in the rural areas. While the annual average professional salary paid in 1904 was \$450, high school teachers in large cities received \$1,597 and large city high school principals received \$1,931.

In 1920, an inquiry by the American Council on Education into the financing of education had great influence in shaping educational financial policy across the nation. The Cole Law of 1925 in New York set the stage for the national emergence of state-supported foundation programs which attempted to correct for local inequities. It was during this period that the "single salary" schedule gained favor. Since that time, the gap between secondary and elementary teaching salaries has been narrowing. However, even today a small gap persists.

The year 1945 marked the beginning of a rapid catching-up period and the beginning of a wide variety of state aid programs designed to increase the ability of the local districts to finance education adequately. Average salaries increased by 13 to 14 per cent annually for the next four years. Between 1949 and the present, average salaries have increased at the rate of about seven per cent each year. Table 1 presents the average annual salaries of professional educational staff in various years from 1900 to 1971.

Administrative salaries, on the whole, have been structurally related directly to the salary schedule for classroom salaries. In 1969-1970 the N.E.A. reported that 62.4 per cent of those districts with 6,000 or more enrollment incorporated an index or ratio in determining administrative salaries. Another 12.7 per cent were derived by adding specified dollar amounts.

THE FUTURE OF PROFESSIONAL SALARIES

The 1970's should see many changes in professional educational salaries. The following factors will play important roles in the determination of future salary policy:

(1) *Serrano v. Priest*: The recent decision of the California Supreme Court in *Serrano v. Priest* and similar decisions in Texas and New Jersey have led to a reexamination of state aid programs throughout the nation. The court said, in fact, that the responsibility for equal educational opportunity rests with the state and that the dollars spent for public schools could no longer be determined by the financial ability of the local district. Implementation of this decision could have an equalizing effect on professional salaries of districts within state boundaries.

(2) *Increased Federal Aid*: Up to now, the federal government has had little effect upon the financing of local school systems. Federal aid has been categorical in nature and at its maximum has accounted for only eight per cent of the total elementary and secondary

Table 1
Average Salaries Paid Professional Public School Staff, Selected School Years 1900 through 1970-71, in Current Dollars and in Terms of 1969-70 Purchasing Power*

School Year	Average Annual Salary		Purchasing Power of \$1.00 in 1969-70 Prices
	In Current Dollars	In 1969-70 Prices	
1899-1900	\$ 325	\$1,383	\$4.26
1909-10	485	1,465	3.02
1919-20	871	1,589	1.82
1929-30	1,425	3,181	2.23
1939-40	1,441	3,920	2.72
1944-45	1,846	3,932	2.13
1949-50	3,010	4,816	1.60
1959-60	5,159	6,655	1.29
1969-70	9,047	9,047	1.00
1970-71	9,689	9,398	.97

*Adopted from *Economic Status of the Teaching Profession, 1970-71*, Research Report 1971-R4, Research Division, N.E.A., Table 23, p. 29.

budget. Both the National Educational Finance Project and the President's Commission on School Finance have recommended some form of increased federal aid. This aid would have the effect of raising the ability of the less wealthy states to support education. Such a move would tend to equalize salary differentials among states.

(3) *Collective Bargaining*: The proliferation of collective bargaining contracts between teachers' organizations or unions and local school boards has had an equalizing effect on salaries within state borders. The impending mergers between professional associations and organized labor unions will have an even greater effect. Teachers will have the availability of sophisticated negotiators backed up by capable research organizations. The increase in political power will be even more important. Teachers' salaries are in the public sector and are dependent upon the will of the taxpayers and the legislative bodies. The new organizations will engage in wide public relations programs at the local level as well as effective lobbying pressure in the state and federal legislatures.

Negotiation now takes place at the local school dis-

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"The problem for the 1970's will be devising new techniques for financing school facilities so as to come closer to equity in their distribution."

Financing School Facilities

BY BRUCE F. DAVIE

Associate Professor of Economics, Georgetown University

THE CURRENT METHODS of financing public education are being widely challenged by taxpayers, legislators and litigants in the courts. Under the banner of equality of educational opportunity, the tradition of local financial support is under attack. The local property tax links spending for elementary and secondary education to the wealth of individual communities. Wide variations in current expenditures per pupil among local districts characterize public education in most states. While states and, to a lesser extent, the federal government contribute funds to the budgets of local school agencies in an attempt to narrow these differences in per pupil spending, differences on the order of two to one or three to one are still common.¹

The debate over school finance has centered on current expenditures per pupil—mostly teacher and other salaries. This paper attempts to place in historical perspective another dimension of school finance, capital outlays—mostly expenditures for land, buildings and equipment. These expenditures are even more inextricably tied to local wealth than are current expenditures. While, for the nation as a whole, just over half (52.7 per cent in 1968) of total school revenues come from local sources, local funds accounted for 82.5 per cent of the \$4.3 billion total spent on capital outlays in 1968.² In addition, some of the capital funds provided by the federal government, states, and special financing authorities are loans that must be repaid out of local revenues.

The principal method by which local school systems finance their capital outlays is by selling bonds. The historical development of this fiscal technique is examined in the first section of this article. Then the contemporary problem of financing school facilities

is discussed in more detail. The final section examines educational capital in the context of the total educational process and asks the question: "what difference does the quantity or quality of school facilities make to the education of students?"

THE HISTORICAL PERSPECTIVE

Two trends in the second half of the nineteenth century—urbanization and the development of public school systems—caused the emergence of an economic and political problem, how to finance the building of schools. As long as education was a private activity or was located in small rural villages, this was not a major problem. The way in which the problem was met in the growing cities and towns established a pattern that still prevails, though its details have been modified. This pattern for financing school construction is likely to be challenged and broken during the 1970's.

The nineteenth century solution to the problem of financing school construction was for local school districts or cities to issue bonds with future interest and principal payments to be made from local property tax receipts. This fiscal technique, used earlier in the century to aid canal and railroad projects, fit a sense of fairness: future citizens who would benefit from new schools would also pay part of the costs. Lest the bond-issuing technique be abused, states adopted statutes or constitutional provisions to limit the amount of indebtedness school districts could incur, put ceilings on interest rates that could be paid, and required that bond issues be approved by referendum.

Some of these restrictions were adopted in response to widespread defaults on school bonds and other local government securities during the depressions following 1873 and 1893. At first the school bonds outstanding were few in number and represented a small fraction of total state and local government debts. In 1880, the first year for which such data are available, school district debt was \$18 million, 2.1 per cent of total state and local government debt; by 1932 school district debts had grown to \$2 billion and were 13.3 per cent of total state and

¹ Advisory Commission on Intergovernmental Relations, *State Aid to Local Governments* (Washington, D.C.: U.S. Government Printing Office, 1969), p. 58.

² U.S. Bureau of the Census, *Statistical Abstract of the United States, 1971* (Washington, D.C.: U.S. Government Printing Office, 1971), p. 120, and W. Monfort Barr and K. Forbis Jordan, "Financing Public Elementary and Secondary School Facilities," in Roe L. Johns, *et al.*, eds., *Planning to Finance Education* (Gainesville, Fla.: National Educational Finance Project, 1971), p. 241.

TABLE I: Capital outlay and tax-exempt bonds sold for public elementary and secondary school facilities for the United States: 1950–1970

Dollar amounts in millions

Fiscal Year ending June 30	Classroom units constructed	Expenditures	Tax Exempt bonds sold
1950	30,900	\$ 1,014	\$ 854
1951	38,900	1,316	986
1952	44,600	1,563	957
1953	55,100	1,995	1,451
1954	58,800	2,200	1,667
1955	60,005	2,310	1,634
1956	63,283	2,607	1,804
1957	68,660	2,982	1,870
1958	72,070	3,062	2,420
1959	69,453	2,539	1,948
1960	69,400	2,823	2,195
1961	72,214	2,864	2,357
1962	72,089	2,987	2,568
1963	65,300	2,700	2,274
1964	69,300	3,116	2,569
1965	(65,200)	(3,524)	2,823
1966	72,600	3,755	2,883
1967	(71,000)	(4,000)	3,254
1968	75,400	4,256	2,917
1969	(69,700)	(4,654)	2,904
1970	66,100	5,061	2,813

Notes: 1. Includes only schools operated by local districts; 2. Items in parentheses are estimates.

Source: for 1950–1965, *State and Local Public Facility Needs and Financing*, Study prepared for the Subcommittee on Economic Progress of the Joint Economic Committee, 89th Cong. 2nd Sess., Vol. 1, *Public Facility Needs* (Washington, D.C.: Government Printing Office, 1966), p. 354; for 1966–1970, U.S. Office of Education, *Projection of Educational Statistics to 1979–80*, 1970 edition (Washington, D.C.: Government Printing Office, 1971), p. 96 and U.S. Office of Education, *Statistics of Public Schools, Fall 1970* (Washington, D.C.: Government Printing Office, 1971), pp. 34 and 36.

local government debts.³ Historical data are also available for capital outlays for elementary and secondary education. In 1880, they were \$26 million and 18.6 per cent of total school spending. The peak year for capital outlays during the pre-depression decade of the 1920's was 1926, when such outlays equalled \$411 million and were 20.2 per cent of total school spending. School construction declined during the depression of the 1930's as did total spending for school purposes: in 1934, only \$59 million was spent for capital outlays, a mere 3.4 per cent of total school spending in that year. One bright spot during the depression was the school building activity of the federal Works Progress Administration. The WPA built 5,900 schools and renovated another 31,000, often with a level of craftsmanship and attention to

architectural detail unknown today.⁴ The magnitude of capital outlays did not regain the levels of the 1920's until after World War II. In 1948, such outlays were \$412 million, 9.5 per cent of total school spending.⁵

The 1950's initiated the postwar boom in school construction to make up for the deficiencies of the depression and war and to accommodate the rapidly growing population of schoolchildren. Some basic data for this period are shown in Table I. Not all the new classrooms were a net addition to the stock of educational capital; some were needed to replace abandoned facilities. The following is an estimate of the purposes of room construction during the 1960's.⁶

	Annual construction of classrooms
To provide for overall increased enrollment	36,000
To provide replacement for abandoned rooms	20,000
To relieve migratory problems, to provide for new programs, and to reduce pupil/room ratios	14,000
TOTAL	70,000

Not all the reported increases in outlays per classroom constructed represent improvements in the

³ Morris A. Copeland, *Trends in Government Financing*, A Study by the National Bureau of Economic Research (Princeton: Princeton University Press, 1961), p. 94. Some state and local government debts were also issued to finance school construction but their amount is not separately known.

⁴ Paul Lancaster, "Was the WPA Really So Awful?" *The Wall Street Journal*, April 18, 1972.

⁵ The data for this paragraph were taken from U.S. Bureau of the Census, *Historical Statistics of the United States, Colonial Times to 1957* (Washington, D.C.: U.S. Government Printing Office, 1960), p. 209.

⁶ Cresap, McCormick and Paget, Inc., *Economics in Education*, a report prepared for the President's Commission on School Finance (New York, 1971), p. 143.

quality of school facilities as these decades were ones of increasing costs for land and construction services. For example, the index of school construction costs increased from 100 in 1959 to 134.2 in 1968.⁷ The growing volume of bonds outstanding and rising interest rates have led to larger interest and principal payments so that these debt service expenditures equalled \$54 per pupil in 1968, or about 7 per cent of total current expenditures per pupil.⁸

THE CONTEMPORARY PROBLEMS

It would be naive to suppose that the problem of financing school facilities is over in view of the projected stabilizing of the school-age population during the next decade. The need to replace obsolete facilities will not abate. For example, an estimate made for 1965 indicated that 30 per cent of the 1.5 million instructional rooms then in use were constructed before 1930.⁹ Many of these old school buildings are concentrated in inner city areas where land and construction costs are high and where the fiscal problems of local governments are acute. New facilities will also be needed to accommodate geographic shifts in the population, to reduce overcrowding where it exists, and to enrich the educational experience of students by providing libraries, laboratories, and athletic and other facilities where they are now lacking.

The need for facilities and the ability to finance their construction do not coincide, however. As indicated above, capital outlays currently depend even more heavily on the local property tax base and the debt which that tax base can support than do current expenditures. Many of the fiscal constraints imposed by state constitutions and statutes exacerbate the problem. Debt and interest rate ceilings may be unrealistically low as, for example, in cases where property tax assessment practices result in below-market assessment rates and where the number of school bonds that can be issued is limited to some fraction of assessed (rather than market) property values. But, in many areas, no amount of tinkering with the system that relies primarily on bond issues and property taxes to finance school facilities will permit needed facilities to be built simply because the real value of property is low.

Another dimension of the contemporary problem is the growing resistance of voters to proposed school bond issues. The per cent of issues, measured in dol-

lars of par value, approved in bond referendum fluctuated between 68 and 79 per cent over the period 1962 to 1967. By 1971, that percentage had fallen to 41 per cent.¹⁰

New methods of financing will have to be found involving a greater role for state and federal governments. In 1971, Maryland became the first state (outside of Hawaii, where there are no local school agencies and where all public spending for education is financed by the state) to shift most of the responsibility for financing facilities from local districts to the state. Other states are likely to follow in an attempt to meet the growing demands for equality of educational opportunity.

It would be tempting to stop the argument here and summarize by saying that historical methods for financing elementary and secondary school facilities are inadequate in the 1970's because there is a mismatch between facility needs and fiscal capacity and that therefore more state and federal funding are required. To do so would beg a fundamental set of problems. What does one mean by the need for school facilities—how much would be enough? Obviously not every child can attend brand new schools so what, in the context of school facilities, does one mean by equality of educational opportunity? What difference does the quantity and quality of school facilities make to a child's education?

FUNDAMENTAL QUESTIONS ABOUT SCHOOL FACILITIES

Elementary and secondary education can be thought of as a productive process where inputs—the labor services of teachers, the time of students, the services of the capital embodied in land and facilities, and so on—are related to outcomes—changes in the performance, behavior and self-awareness of students. The dollar values of these inputs are the costs of education and the outcomes are its benefits, many, if not most, of which cannot be measured in terms of dollars. Costs in this sense differ in at least two important ways from the expenditure data reported by school agencies.

First, a part of the real cost of education is borne by students in the form of foregone income. Although not important at the elementary level, many students at the secondary level forego at least some income by attending school rather than working. During the nineteenth century, when social and legal

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⁷ "The Skyrocketing Cost of School Construction," *School Management*, July, 1969, pp. 38-43.

⁸ Barr and Jordan, *op. cit.*, p. 241.

⁹ *State and Local Public Facility Needs and Financing*, Study prepared for the Subcommittee on Economic Progress of the Joint Economic Committee, 89th Cong. 2nd Sess., Vol. 1, *Public Facility Needs* (Washington, D.C.: U.S. Government Printing Office, 1966), p. 354.

¹⁰ U.S. Office of Education, *Bond Sales for Public School Purposes, 1970-71* (Washington, D.C.: U.S. Government Printing Office, 1972), p. 3. See Robert Lamb's article in this issue.

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“... any consideration of the cost and value of innovative services in education is a very tentative exercise, given the current state of the art.”

The Costs of Educational Innovation

BY MARK R. SHEDD

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and

JACQUELINE CLEMENT

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THE DECADE of the 1960's is now described as the era of educational innovation. There is, nevertheless, a curious absence of hard data about what has been significant—what is the cost and what is the value of these innovations? Interestingly, despite the increased number of innovative services added to the public school program, these innovations still play a rather minor and undramatic role in the overall functioning of the educational system. Initially, educational innovation was viewed as a test of a school's modernness. Indeed, adaptability is a concept used to describe a school system which considered innovation as an end in itself.¹ Thus, a host of programs were initiated at all levels, with no specific function other than “to get something new going.”

Today we are beginning to reassess the whole process of educational innovation in terms of our basic concerns about the functions of our schools and about the priorities of our society. On the one hand, this review has revealed an unrealistic conception of what, in fact, our schools can do. Demands to solve problems over which schools have no direct control—unemployment, racial imbalance in neighborhoods, mounting welfare costs, to name a few—are resulting in increasing pressures on our schools' limited resource

base. On the other hand, many groups are insisting that our schools carry out their traditional role of increasing the academic achievement of students more efficiently and effectively. Neither national priorities nor local consensus generate the means by which to accomplish these ends, however.

It is with trepidation, then, and in a real spirit of risk-taking, that one seeks to change the educational system at all, let alone to choose among the array of innovative programs currently in vogue. To attempt to devise totally new resource allocation patterns and to implement decisions to meet all the educational demands of society is beyond the financial capacity of local school systems. Hence, we are now at least beginning to view educational innovation in the broader context of how we see the school's role in our society. And, in this context, we have begun to reach general agreement about what we would like our schools *not* to be. That is to say, we are arriving at a consensus that some changes in the existing practices are needed, even though we have not yet agreed upon a final objective—if, indeed, we ever should.

Educational innovations can be viewed in two ways. There are those that, attempting to achieve a new relation between educational inputs and outputs, cause a reallocation of educational resources into more efficient and effective patterns. Viewing education as a production function, economists have suggested that, with innovation, existing educational inputs can be varied to achieve a given output (however defined) more efficiently.² Other innovations, reflecting dissatisfactions with the total school system, would alter the structure, control and operation of the educational organization. The power base, which insures the existence of a given educational system, is under attack from these more pervasive innovational changes, to the degree that it does not reflect the values of special groups in society. There is, in short, an educational reform movement which demands that innovation in-

¹ Paul R. Mort, “Studies in Educational Innovation from the Institute of Administrative Research: an Overview,” in Matthew B. Miles (ed.), *Innovation in Education* (New York: Teachers College Press, Teachers College, Columbia University, 1964), p. 317.

² For further discussion in this area see “Procedures for Managing Innovations: Analysis of Literature and Selected Bibliography,” ERIC Clearinghouse on Educational Administration, University of Oregon, Eugene, Oregon, September, 1970, Analysis and Bibliography Series No. 7, Clearinghouse Accession No. EA 003061. Also James G. Miller and Gustave J. Rath, “Priority Determination and Resource Allocation by Planning, Programming, Budgeting and Cost Effectiveness Analysis in Educational Systems,” March, 1969, ERIC Clearinghouse Accession No. ED 051548, and Charles S. Benson, “Allocation of Educational Resources” in Committee for Economic Development, *The Schools and the Challenge of Innovation*, Supplementary Paper Number 28 (New York, 1969), pp. 57-72.

clude "new ideas about the role of education, the nature of the child, or place of culture in a democratic society."³ Even more fundamentally, the premise that schools should be used to inculcate society's values is now being challenged. Schools are responding to these forces by attempting to provide innovative services at several levels. Herein lies the critical problem.

Without a general theory of learning or a clear national consensus about the goals of education, many of the scarce resources allocated to educational innovation are consumed by very experimental phases working at cross-purposes. The test of cost effectiveness is useless in evaluating technological replacement of labor. A cost-benefit analysis of various innovative alternatives is equally unproductive at this time. The costs of innovation in the educational sector are still high; the results vague. Yet, the amount of "venture capital" allocated to education is less than any respectable firm in the private sector would consider appropriate.⁴ All this is by way of leading up to the caveat of this paper: any consideration of cost and value of innovative services in education is a very tentative exercise, given the current state of the art.

VALUABLE INNOVATIONS

Using my Philadelphia experience as a base, there are several innovations which are potentially valuable. Few have proved themselves cost effective. "Value added" is, in a large sense, contingent upon what one's own educational concerns suggest is important. Nevertheless, without systematic experimentation and evaluation, information about what innovations are feasible and useful to the schools and the community will not be forthcoming.

School administrators have joined economists in attempts to evaluate the internal efficiency of different educational strategies. In spite of the astonishing lack of information available to the policy-makers, especially in large school systems,⁵ a variety of methods are being utilized to increase the effectiveness and efficiency of school services.

One way of doing this is to improve the budget process and related accounting procedures. That is to say, innovation in the schools might start with improvements in the management of education. With

all due respect to the multi-purpose functions of school, as opposed to the specialized functions of the private sector where such practices originated, it has been suggested that innovative methods of management require attention to at least three facets of budget decisions.⁶ At the economic level, there must be an assignment of priorities and an assessment of efficiency and returns from alternative allocations of resources to education. Technically, there must be a system which provides for recommendations on optimum organization and strategies for accomplishing goals. Political reality demands a process by which conflicting demands for funds can be mediated and support for programs mobilized.

Specific tools for meeting these demands for systematic decision-making are benefit-cost analysis, cost effectiveness analysis, planned program budgeting systems, and provisions for periodic review and evaluations of programs.⁷ The value of modern management techniques to the system can only be established by examining the overall effectiveness of resource allocation in better meeting the objectives of the total system. Innovations in management, that is, cannot be assayed *per se*; rather, they can be judged only to the degree that they insure that the goals and objectives of the educational organization can be attained more efficiently.

A second thrust of adding innovative services in education is getting more out of existing instructional resources. The introduction of machine technologies, new staffing patterns, program reorganization, curricular reforms stressing new content, and new programs for teacher education all contain innovative approaches designed to improve the quality and quantity of education without expanding total educational resources.

One of the most dramatic attempts radically to change instructional techniques through the use of technology was the experiment with computer-assisted instruction (CAI) in Philadelphia. Provisional conclusions from our brief experience with this exciting program suggest that achievement in biology and reading is as much as 15 per cent higher for CAI students than for control groups. But—and herein lies the difficulty—although it is economically and educationally sound to experiment with the substitution of machine technology for the high-cost labor

(Continued on page 27)

³ Beatrice Gross and Roland Gross, "Radical School Reform," *School and Society* (January, 1971), p. 28.

⁴ Leon Lessinger, in *Every Kid a Winner: Accountability in Education* (New York: Simon and Schuster, 1970), presents a compelling argument for more development capital for the schools.

⁵ H. Thomas James, "Financing More Effective Education" in *The Schools and the Challenge of Innovation*, *op. cit.*, p. 24.

⁶ *Ibid.*, pp. 23-24.

⁷ See Alice M. Rivlin, *New Approaches to Public Decision Making* (Special Study No. 18), prepared for the Economic Council of Canada (Ottawa: Economic Council of Canada, 1972), for a useful summary of information in this area. Particularly relevant are pp. 7-29.

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It is clear that, because of rising costs, the Catholic elementary schools "cannot survive in number or in size comparable to the present (to say nothing of the past) without a substantial influx of public aid."

Rising Costs of Catholic Schools

BY JOHN DEEDY

Managing Editor, Commonweal magazine

IN ONE CONTEXT of history, the Catholic school system as it exists today on the elementary and secondary levels is sheer accident. When the early Catholic leaders of the United States contemplated the education of young Catholics, they did not envision any exclusively Catholic effort, at least not a major effort; they hoped for an arrangement whereby Catholics and other children of whatever creed could study in a common, mutually acceptable, religiously oriented system. This was in the period immediately after the Revolutionary War, when America's first Catholic bishop, John Carroll of Baltimore (1735-1815), was shaping the destiny of the Catholic Church in what was then still the New World.

For many reasons, Bishop Carroll's dream of a single school system never materialized. Perhaps the strongest reason was that the early public school system of the United States took on a cast too Protestant for Catholic tastes. Today, Catholics—many of them, at least—would gladly settle for the religious currents which at one time coursed through public education, but in Bishop Carroll's time the idea was anathema. By 1792, Bishop Carroll was addressing a pastoral letter to Catholics of the United States stressing the urgency of a "pious and Catholic education of the young to insure their growing up in the faith." In effect, that pastoral letter signaled the establishment of a separate school system, in which Catholics would be taught by Catholics, with Catholicism not only the official religion of the school but affecting practically the whole curriculum.

The First Provincial Council of Baltimore, the 1829 assembly of American Catholic Church leaders, affirmed the note struck by Bishop Carroll. It decreed as follows: "We judge it absolutely necessary that schools should be established, in which the young may be taught the principles of faith and morality, while being instructed in letters." The Second Provincial Council of 1833 reaffirmed that decree, and the Third Plenary Council (1884) virtually enshrined it. The Third Council *mandated* that a parochial school be

erected in *every* Catholic parish within two years' time, except in those instances where the bishop of a diocese deemed a delay allowable due to extenuating circumstances (*ob graviores difficultates*, in the bishops' Latin phrase). Parents, in turn, were directed to send their children to these schools, with special permission of priest or bishop required before they could do otherwise.

Response was so nearly automatic that by 1912 the Catholic parochial school system had developed into a \$15 million annual effort, with more than 20,000 teachers and more than 1 million pupils. Catholic school property itself was valued at \$100 million. The size of the Catholic school system was such that Archbishop John Lancaster Spalding of Peoria (1840-1916) was moved to term it "the greatest religious fact in the United States today." In his eyes, the wonder was the more notable because this system was "maintained without any aid" from the public sector; it was supported entirely by people "who love it"—Catholics themselves.

And still the "wonder" was just beginning. When John Cardinal Cody of Chicago took the floor of St. Peter's Basilica in Rome on November 17, 1964, to address the Fathers of Vatican Council II on the issue of Christian education, he boasted (literally) that the 45 million Catholics of the United States were supporting 13,655 schools, taught by 191,126 priests, Brothers, Sisters and lay teachers, receiving 10,500,000 students in every grade of education. The figures did not coincide exactly with totals for the same period appearing in the *New Catholic Encyclopedia* (see Tables 1-A and 1-B); Cardinal Cody was perhaps also including college and university statistics in his totals. But his figures were sufficiently close to make indisputable the point that the Catholic school system in the United States on the primary and secondary levels was a formidable item, indeed, and still almost entirely a Catholic effort. The system was maintained by the voluntary contributions of parishioners, supplemented in some cases by modest fees or tuitions paid by the parents of the pupils, and ren-

Table 1-A: Growth of Catholic Elementary Parochial Schools, 1922-1964*

Type	1922-24	1953-54	1963-64
Schools	7,198	9,279	10,775
Priests	151	190	580
Sisters (Nuns)	46,765	66,146	75,867
Brothers	906	1,141	666
Lay Teachers	5,623	9,356	38,355
Pupils	2,036,569	3,235,251	4,534,336

dered the more possible by the largely contributed services of teaching members of religious orders and the professional talents of lay teachers willing to work in the Catholic school system at pay scales which, until recently, were substantially lower than those of their counterparts in the public school. Authorities were estimating at about this time that the Catholic school system represented a saving to the taxpayer of approximately \$9 billion—the amount it would cost the national, state and local communities in school operating costs and new construction if Catholic schools were closed and the millions of students from these schools were transferred to public schools.

Table 1-B: Growth of Catholic Secondary Schools, 1920-1963*

Year	Number	Enrollment
1920	1,552	129,848
1947	2,111	467,039
1953	2,416	577,860
1963	2,432	1,004,927

That \$9 billion figure came from Catholic sources, but it was hardly inflated. Just a few years later, on April 6, 1972, to be precise, when President Richard Nixon spoke before the National Catholic Educational Association's annual convention in Philadelphia, he said that the disappearance of nonpublic schools would "saddle" the taxpayer with a \$13-billion burden—" \$3 billion annually in school operating costs, plus as much as \$10 billion in new school construction." There is a considerable gap between \$9 and \$13 billion, but the two figures are not in conflict. For one thing, there is the element of inflation; for another, Mr. Nixon used the phrase "nonpublic schools"—a point which helps remind us that private education is not a uniquely Catholic preoccupation. Several Protestant denominations and some branches of Judaism operate school systems; there are also many nonsectarian private schools (usually for the affluent).

Still, the Catholic school system is far and away the largest of nonpublic systems. According to 1965-1966 records of the United States Office of Education,

it does 86.9 per cent of the nonpublic school educating on the elementary and secondary levels in the United States. Of the remainder, 7.7 per cent was classified as "other church-related" and 5.4 per cent as not church-related.

Those who enjoyed the halcyon years of Catholic education undoubtedly found it difficult to envision a day when the Catholic school system would tremble and threaten to collapse before their very eyes. True, there were problems in those "good" years. Finances were becoming more of a burden as the system grew like Topsy. On the other hand, Catholics as a body were becoming more affluent, and there seemed an abundance of religious vocations to teaching orders of nuns, Brothers and priests; this assured a reservoir of low-cost teachers, always an important consideration but especially important given rising trends in lay teachers' salaries. More important, there was a succession of court decisions favoring various indirect forms of assistance to pupils in private and parochial schools (e.g., bus transportation, shared time, health care, textbooks and so on); these decisions quickened hopes for direct financial aid to Catholic schools. Obviously the future would not be made easier by the continued burgeoning of the Catholic school system, but it certainly appeared manageable.

Suddenly, however, shadows appeared. The growth of Catholic schools peaked in the two years following Cardinal Cody's presentation at Vatican Council II. Then, mystifyingly, a decline set in. Reverend Frank H. Bredeweg, C.S.B., director of special projects of the National Catholic Educational Association, sketched the picture in an appearance before the subcommittee on education of the Senate Committee on Labor and Public Welfare:

During the three years from the fall of 1967 until the fall of 1970, the number of Catholic elementary and secondary schools decreased about 10 percent and the enrollment decreased about 16 percent. The number of full-time religious teachers decreased about 14 percent, while the number of lay teachers increased about 34 percent. During these years, more teachers were employed for fewer students, at much higher costs.¹

In round figures, elementary and secondary school enrollments were down from their mid-1960's peak of more than 5.5 million to less than 4.4 million.

¹ December 2, 1971. See Appendices A, B and C.

* Source: *New Catholic Encyclopedia*. Copyright © 1967 by The Catholic University of America. Used with permission of McGraw Hill Book Company.

The decline continued into 1972, with no signs of abating.

The latest official count, as this article was written,² showed 1,189 diocesan and parochial high schools, educating 658,122 students; 765 private Catholic high schools, educating 357,591 students; 9,271 elementary schools (parochial and institutional), educating 3,348,421 students; and 335 private elementary schools, educating 65,189 students. Lay teachers, meanwhile, had increased to 106,844, outnumbering by a decided margin the combined total of teaching nuns (78,371), Brothers (4,914), scholastics (505), and priests (9,804). The figures are from the *Official Catholic Directory for 1971* (Kenedy).

The enrollment declines baffled Catholic officials, for rather than being the result of isolatable religious or sociological phenomena, they seemed to combine elements of both in no perceivable pattern. For instance, inner-city Catholic schools were filled, but families leaving the inner city for the suburbs began to choose public schools for their children in their new suburban location in preference to the parochial system they were anxious to use during their inner-city residency. Part of the reason for the public school choice in suburbia, of course, concerned availability and convenience; suburban parishes being new, not all had parochial schools, or maybe the public school was nearer to home. Some parents were opting for superior facilities; with a more generous budget, the public school is frequently in a position to do more, particularly with respect to enrichment programs in fields like mathematics, music, science and languages.

But part of the reason had also to do with what a study undertaken for New York State's Fleischmann Commission called "changing Catholic tastes." Catholic parents less and less feel a compulsion to send their children to parochial schools, whatever the exhortations of the clergy. Accordingly, in many suburban areas, it is not unknown to have empty desks running as high as 30 per cent. What is it, Catholic authorities want to know, that makes the Catholic school desirable to parents of school-age children in one situation and not in another, and will it ever be possible to plan a school system when continuing population shifts bring with them new values and a different set of preferences?

Coinciding with this phenomenon of "changing Catholic tastes" was a drastic drop in religious vocations and, inevitably, a drain-off of the bargain teaching talent that for a century and more had helped keep the Catholic school system solvent. Some idea of the new expense this development involves is

grasped by looking at salaries. As recently as five or ten years ago, when parochial schools were paying lay teachers a low \$6,500 to \$8,500 a year, teaching nuns were receiving only a fraction as much. The financial rewards for teaching nuns are only a little higher now. According to a 1970-1971 report on American Catholic schools prepared by the National Catholic Educational Association, the average salary of the teaching nun ranges from \$1,725 in Southeast United States, to \$2,015 in the West and Far West, and \$2,090 in the Mideast. The national average is \$1,995.³ It is easy to imagine how budgets would skyrocket when there were fewer nuns for classrooms, and when their places were taken by lay teachers demanding a wage competitive with, although still less than, that of teachers in the local public school systems. Lay teachers of the Archdiocese of New York went on strike in the fall of 1971 for a salary scale pegged from \$8,500 to \$15,400. They did not win their full demands, but the strike served notice of the new era. The teachers settled for \$200- to \$600-raises added to their old salary range of \$6,600 to \$9,600 for elementary school teachers with college degrees, to \$7,200 to \$13,000 for high school teachers with degrees. Elementary level teachers without degrees earned from \$5,000 to \$5,800 before the settlement.

If escalating salaries were not financial headache enough for Catholic school officials, during 1971 the Supreme Court handed down two decisions which not only devastated hopes for direct financial aid to their schools, but threatened the not inconsiderable indirect aid already being received. The decisions were on a Rhode Island case (*Robinson v. DiCenso*, 403 U.S. 602 [1971]), wherein the court struck down a law under which Catholic school teachers were paid up to 15 per cent of their salaries for handling "secular subjects," and a Pennsylvania case (*Lemon v. Kurtzman*, 403 U.S. 602 [1971]), wherein the court invalidated a law which earmarked \$20 million a year from cigarette and horse-racing revenues to private schools for teacher salaries, textbooks and instructional materials. The cases were substantively settled on the element of "entanglement" between church and state, which the court found to be "excessive." The votes were not even close. In *Robinson v. DiCenso*, the vote was 8 to 1; in *Lemon v. Kurtzman*, it was 8 to 0, with one abstention.

Pennsylvania sought to circumvent the rulings by hurrying through the state legislature a law that would have funneled \$47 million a year to parents of nonpublic school children. Parents would have received \$150 a year for each child they had in a nonpublic secondary school, and \$75 for each child in a nonpublic elementary school, which sums were intended to be reimbursement for costs connected with

² April, 1972.

³ "A Report on U.S. Catholic Schools, 1970-71," a publication of the Research Department of the National Catholic Educational Association.

Table 1-C: Catholic School Income and Expenses for 1969-70 (Actual) and 1970-71 (Budgeted) (Thousands of Dollars)

	Elementary		% Schools Reporting
	1970-71 Total	%*	
Tuition	\$160,730	17.51%	94.5%
Fees	34,719	10.23	94.3
Income from Gifts	7,754	-19.07	94.1
Subsidy from Parish	355,982	6.22	93.3
Subsidy from Diocese	7,540	11.11	94.1
Subsidy from Religious Order	2,282	7.45	94.1
State and Local Aid	28,440	122.69	94.1
All Other Income	20,491	- 1.33	94.1
Total Income	604,552**	9.65	87.0
Operating Expenses	590,360	11.20	83.0

* Increase or decrease from 1969 (Actual) Income or Expense

** While total income exceeds total expense, this does not indicate that these schools are operating at a profit. As a rule, parish, diocesan and community subsidies make up the deficit between income collected at the school and the total school expense.

Source: National Catholic Educational Association's data bank book, "A Report on U.S. Catholic Schools, 1970-71."

sending their children to nonpublic schools. A three-judge federal court ruled, however, on April 6, 1972, that the law was unconstitutional. "If parents cannot afford to provide religious education for their children in sectarian schools without state aid, then," said the court, "by providing a program for aiding the parents, the state is plainly advancing religious education."

What Catholic authorities are especially anxious to gain for their schools at the moment by way of financial relief is some sort of tax-credit measure by which parents would be eligible to deduct all or a portion of the cost of private school education for income tax purposes. Several proposals, allowing up to \$400 a child, are presently before Congress.

Whatever the success of those proposals and of President Nixon's promises to secure financial relief for parochial schools, the fact is that the Catholic school system is already being assisted, however indirectly, by the public sector, primarily by way of health and welfare programs (see Appendix C). A sampling of what a few states provide follows; values in dollar equivalents are easy to appreciate:

New York: School bus transportation, health and welfare services, assistance to handicapped children, school lunch service, testing services, textbook loans and administrative costs. Under the latter, the State of New York has provided reimbursement to nonpublic schools for costs involved in fulfilling the state's administrative requirements regarding attendance, examinations, health records, grading and general data keeping. Reimbursements have averaged about \$27 million for elementary schools and \$45

million for secondary schools, annually. The practice is presently under court challenge, and on April 11, 1972, a special three-judge federal court temporarily barred further payments, pending a decision by the court on the constitutionality of the law authorizing the payments.

On April 27, a special three-judge panel ruled 2 to 1 in Federal Court, New York City, that the state's Mandated Services Act violated constitutional separation of church and state, and that reimbursements to private and parochial schools for services under the act are barred. New York State officials announced that they are appealing the ruling.

North Dakota: School bus transportation, sales tax exemption, teacher retirement. Under the latter, lay teachers in nonpublic schools are permitted to participate in the public school teacher retirement program.

Pennsylvania: School bus transportation, health and welfare services, driver education, shared time (dual enrollment). Under the latter, nonpublic school pupils may take courses in public high schools, trade, vocational, technical and agricultural schools, and avail themselves of public school facilities, such as libraries, reading rooms, gymnasiums and playgrounds.

Connecticut: School bus transportation, services for emotionally disadvantaged, driver education, health and welfare services. The latter covers such services as school physician, nurse, dental hygienist, psychologist, speech remedial specialists, social workers, special language teachers for non-English speaking students.⁴

But as real as is indirect state aid to parochial schools in many states, the fact remains that Catholics themselves carry the direct financial weight of their schools—Catholics generally, through their contributions to general church funds; and Catholics in par-

⁴ A state-by-state breakdown of public assistance to nonpublic schools is contained in a publication of the Department of Special Projects, National Catholic Educational Association, entitled "State Aid to Non-Public Schools." The publication covers the situation as of February 1, 1972. Copies may be had from: Publication Sales, National Catholic Educational Association, One Dupont Circle, Suite 350, Washington, D.C., 20036. Individual copies cost \$2.

Table 1-D: Catholic Secondary School Income and Expenses for 1969-70 (Actual) and 1970-71 (Budgeted) (Thousands of Dollars)

	Secondary Diocesan or Parish			Secondary Private		
	1970-71 Total	% Inc* / Dec	% Schl Report	1970-71 Total	% *	% Schools Reporting
Tuition	\$130,706	22.32%	93.6%	\$139,385	14.47%	98.4%
Fees	22,085	20.46	93.4	12,122	1.27	98.5
Income from Gifts	6,434	44.89	93.4	7,252	-6.64	98.2
Subsidy from Parish	41,186	-1.42	93.4	1,109	-8.04	98.1
Subsidy from Diocese	27,051	-18.05	93.4	1,899	-8.97	98.1
Subsidy from Religious Order	363	135.55	93.4	7,079	9.50	98.1
State and Local Aid	11,076	208.29	93.4	4,274	96.61	98.1
All Other Income	14,125	-6.14	93.5	16,590	-5.40	98.3
Total Income	243,519	12.49	90.8	183,943	11.48	94.9
Operating Expenses	229,819	12.18	83.2	174,052	11.06	87.6

* Increase or decrease from 1969 (Actual) Income or Expense
Source: *Ibid.*, 1-C.

Table 1-E: Per Pupil Budgeted School Income by Income Categories and Total Expense, 1970-1971

Source	Elementary		Secondary Diocesan or Parish		Secondary Private	
	Per Pupil	Resp.*	Per Pupil	Resp.*	Per Pupil	Resp.*
Tuition	\$ 57.58	94.5%	\$243.32	93.6%	\$436.40	98.4%
Fees	12.46	94.3	41.18	93.4	37.94	98.5
Income from Gifts	2.79	94.1	12.00	93.4	22.76	98.2
Subsidy from Parish	129.14	93.3	76.84	93.4	3.48	98.1
Subsidy from Diocese	2.71	94.1	50.45	93.4	5.96	98.1
Subsidy from Religious Order	.82	94.1	.68	93.4	22.23	98.1
State and Local Aid	10.23	94.1	20.67	93.4	13.42	98.1
All Other Income	7.37	94.1	26.32	93.5	52.03	98.3
Total	235.08	87.0	467.29	90.8	597.65	94.9
Operating Expenses	240.71	83.0	481.30	83.2	612.57	87.6

* Percentage responding.
Source: *Ibid.*, 1-C.

ticular, meaning those Catholics in parishes containing a parochial grade school and/or high school. This amounts to some 9,000 parishes, or 57 per cent of the Catholic parishes of the United States. Dioceses usually provide subsidies to individual Catholic schools from general diocesan funds to which all Catholics contribute, but these subsidies, in most cases, cover only a fraction of operating expenses. The bulk of the money to run a parochial school must come from the parish itself, except in those extraordinary instances, such as ghetto schools, where the money to run the schools just does not exist, and the diocese must assume the costs of the educational program of the parish.

In some cases, the parish educational program is known to eat up as much as 80 per cent of the parish proceeds, although the average is somewhere between 50 and 60 per cent. Many parishes are beginning to sag under the weight of this expense.

Non-diocesan and non-parish Catholic schools—private Catholic schools, for instance, which serve a wide area and are run by religious orders of men or women—frequently receive subsidies from the diocese

in which they are located and/or the parishes they primarily serve. But they must rely heavily on tuition charges and fees to support their operations. Thus tuition charges in these schools range to \$800 a year and sometimes much more.

The parochial or parish school was traditionally tuition free, but that situation has ended in the past few years. Most dioceses and parishes have now instituted charges in an attempt to balance account books. The average tuition charge in a parish school is \$100 to \$125, to a limit of three or four children. After a given point there is usually no further charge.

(Continued on page 33)

John Deedy, managing editor of *Commonweal* magazine, is the author of several books, including two to be published next fall: *The Complete Ecology Fact Book*, with Philip Nobile (New York: Doubleday), and *What the Modern Catholic Thinks About Freedom, Conscience and Authority* (Thomas More Press). He has written about Catholic schools in the *New Republic*, *The New York Times* and other journals.

“... this property owners' tax revolt against paying higher costs of education ironically may have precipitated the first overwhelming alteration ever made in the basis of school finance.”

The Taxpayers' Revolt Against Rising School Costs

BY ROBERT BOYDEN LAMB

Assistant Professor of Political Science, Columbia University

IN THE LAST SCHOOL YEAR and for much of the last decade, local property taxes accounted for 55.5 per cent of the money spent on public elementary and secondary schools. The federal government contributed between 6 and 7.5 per cent, depending upon whose data is used, and the remaining 37 to 38.5 per cent was supplied by the state governments.¹ During this past decade, there has been simultaneously a continual and growing revolt of taxpayers against the higher local property taxes for school taxes and school bond issues. As Table I demonstrates, the taxpayers' approval rate dropped from 70 per cent in 1961 to 43 per cent in 1969.² In fact, between 1959, when the approval rate was 79 per cent, and 1972, when the rate was 39 per cent,³ the drop has been that of over 40 per cent of the bond-voting electorate.

This means that the majority of school bond elections are lost throughout most of the 50 states; the amounts of money denied to the schools by these votes, together with cutbacks of the federal and state grants, have caused severe reductions in teachers, substitute teachers, supplies, books, maintenance and all building programs. This has led to what the National Education Association considers “emergency conditions” in the vast majority of the school districts in the 50 states.⁴

SCHOOL BONDS AND TAXES

In general, there are two ways the 55.5 per cent local property tax segment of the education bill has

been met: by a tax vote or by a school bond issue which is put on the ballot or presented in a special referendum and then paid by a local tax levy.

Local school districts entered the bond market because for many years this was a convenient way of raising large capital construction sums for new schools and equipment, and because a bond always appeared superficially like a one-shot call upon the public for a limited and needed project. Bonds contrasted with the local district school tax increases which, once approved for one year's school costs, seemed never to disappear from the tax burden. The journal *School and Community* notes for example that according to school tax laws,

where the board of education is not proposing a higher rate for school purposes, the last tax rate approved shall continue and the tax rate need not be submitted to the voters. Moreover, when the voters have voted against a proposed higher tax rate for school purposes, then the rate shall remain at the rate approved in the last previous school election.⁵

Some states can introduce levies on any ballot whenever they like; other states restrict ballots on tax levies for schools to one per calendar year. But whichever formula is adopted for the elections or whichever items the referendum is to cover, the taxpayer throughout the country has become convinced (for the most part, quite rightly) that this general tax is a one-way street, leading upward in costs at every election, and he has sought to limit, control, or defeat this one area of spending he feels he can influence.

The taxpayers' revolt against specific bond issues for specific purposes is more complex. According to C. B. Hanson, “The major cause of bond issue defeats is the feeling on the part of a majority of voters that the schools do not deserve more money at this time.”⁶ To many others, the negative votes have little if anything to do with schools at all but are the only way most voters can object to a decade of raging inflation and higher taxes at all levels. Both these interpretations must be taken seriously. Voters tend to join in blocs or groups: each bloc has its own view of why schools

¹ Dr. Harold Howe, 2d, of the Ford Foundation, in *The New York Times*, January 10, 1972.

² National Education Association, “Results of Bond Elections for Public School Purposes.” See tables by state and nationally for the years 1961–1969.

³ *Bond Buyer*, December 13, 1971. Report of November 2, 1971. School Building Bond Elections: 92. Approved, 36; Defeated, 56.

⁴ The N.E.A., in its “Results of Bond Elections,” *op. cit.*, has placed a star indicating “emergency conditions” next to 80 per cent of the school districts that are listed in the tables of its report. By emergency conditions, it means a reduction from the previous year's budget for teaching and basic operating expenses.

⁵ *School and Community* (March, 1971), p. 12.

⁶ C. B. Hanson, in *School Management* (July, 1969), p. 67.

Table I: National Results Of Bond Elections For School Purposes*

Year	Per Cent of Bonds Approved Based on Number	Per Cent of Bonds Approved Based on Dollar Value
Fiscal Year 1968-69	56.8	43.6
Fiscal Year 1967-68	67.6	62
July 1, 1966-June 30, 1967	66.6	69.2
July 1, 1965-June 30, 1966	72.5	74.5
July 1, 1964-June 30, 1965	74.7	79.4
July 1, 1963-June 30, 1964	72.5	71
July 1, 1962-June 30, 1963	72.4	69.6
July 1, 1961-June 30, 1962	72.2	68.9

* Source: National Education Association

do not deserve more money or why more taxes should not be squeezed out of them, but in separate areas there are often entirely different determining factors. Most school bond referenda call out only a *very low* percentage (15 per cent) of the electorate, which can be very easily swung either by an anti-school or an anti-tax lobby in that area.⁷ One bloc of voters may be against integration or busing, another, against curriculum changes such as the shift to the new math or team-teaching. Another may be disenchanted with open classes or the lack of discipline. These blocs keep shifting and regrouping, but together they defeat more than 50 per cent of the bond issues presented, plus many special levies for maintenance and operation, primarily because they can depend on general popular reluctance to pay increased taxes, and they can virtually count on the fact that almost 85 per cent of the electorate is apathetic about coming to the polls.

RATIONAL BASES FOR TAXPAYERS' REVOLT

However, the taxpayers' refusal to approve school bond issues has a number of factual and rational bases. L. R. Gabler and J. J. Callahan have shown that "over the past decades school capital outlay expenditures have increased by 43.5 per cent,"⁸ that is, nearly 50 per cent in a period of growing economic squeeze.

⁷ Robert Lyke found that "in non-partisan school elections held in a New York suburb, the mean turn-out across a fifteen-year period was only 10 per cent of the turn-out during a national election, and obviously was even less as a percentage of the possible voters. See "Representation and Urban School Boards," in *Community Control of Schools*, edited by H. M. Levin (New York: Simon and Schuster, 1970). See also Alford and Lee, "Voting Turnout in American Cities," 62 *American Political Science Review*, 796 (1969), and Lester W. Milbrath, *Political Participation* (Chicago: Rand McNally, 1965), pp. 94-120; Robert E. Lane, *Political Life* (Toronto: Macmillan, 1959), Ch. 4, and Angus Campbell et al., *The American Voters* (New York: Wiley, 1964), Ch. 4.

⁸ L. R. Gabler and John J. Callahan, "Federal and State Programs to Help Sell School Bonds." Paper delivered at N.E.A. Fifteenth National Conference On School Finance, New York City, March 27, 1972, p. 1. I am indebted to Gabler and Callahan for permitting me to quote data from their paper before it is published.

⁹ *Ibid.*

¹⁰ *Ibid.*

¹¹ *Ibid.*, p. 2.

¹² *Ibid.*, p. 2.

Thus "outstanding school indebtedness reached \$28.1 billion in 1967-1968, comprising 35 per cent of all local and 25 per cent of all state-local indebtedness," and by 1979 this projected indebtedness will be at least five billion dollars a year.⁹ However, as Gabler and Callahan have pointed out, the interesting phenomenon resulting from the taxpayers' revolt against paying for the new school bonds or tax levies is that increasing amounts of school capital outlay must be financed from non-bond sources which often are as expensive as bonds. In 1950, for example, 84.2 per cent of all school capital outlay was derived from bond sales; by 1969, as a result of the taxpayers' refusal to vote for bonds, this percentage had decreased to 61.8 per cent.¹⁰ Therefore, the direct result of taxpayers' opposition to bonds or levies has been that more educational capital financing came from current taxation or short-term borrowings at cripplingly high rates of repayment.

This leads directly to the second vital, rational reason for taxpayers' revolts against bond issues for schools: interest rates on these bonds have skyrocketed, and interest now accounts for 40 to 50 per cent of the cost of schools.¹¹ Some bond houses imply that the latest rise in their interest rates on these school bonds is justified by their risk, since so many bond issues are being defeated at the polls. Yet almost never has a school district defaulted on its bonds.

The staggering rise in the average interest rate is shown by a 1.42 per cent interest rate average on Aaa bonds and 2.17 on Baa bonds in 1950 compared with the 1970 average of 6.50 and 7.23 per cent respectively on current bonds.¹² Thus taxpayers' associations have rightly pointed out that school debt interest payments increased at a 50 per cent greater rate than school capital outlays between 1961 and 1971, so that voters have determined to call a halt to this method of exorbitant, inefficient school finance.

State legislatures have taken to heart the taxpayers' reluctance and frequent refusal to pay these high interest rates; most states levy some type of restriction on school indebtedness. Thirty-seven states have ceilings on the maximum interest rates that school bonds

may bear.¹³ For 22 of them, school bond interest rates must not exceed six per cent even though Aaa bond issues in December, 1969, commanded an average effective interest rate of 6.5 per cent. Another aspect of the taxpayers' influence upon state legislatures is the fact that 49 states place limits on the aggregate amount of indebtedness that a school district can incur.

The requirement for "extraordinary majorities" in over 14 states¹⁴ has been argued by proponents of taxpayers' revolts as another indication that states and property holders have made provision for protection against the possibility that heavier taxes will be inflicted on them. Therefore, in many states, such as California, Massachusetts, Missouri, New Hampshire, North Dakota and Idaho, the bond vote must pass not by a simple majority of more than 50 per cent but by extraordinary majorities of 55, 60, or 66.66 per cent of the voters. The presence of these laws on the books of many states is evidence of the taxpayers' successful pressure on the state legislatures.

Elmer Wells shows in three interesting diagrams¹⁵ that these extraordinary majority requirements are responsible for the vast majority of the defeats of bond and tax elections; in California, at least, hairline votes (in cases where well over 55 per cent of the population voting was in favor of the bond and tax issues) defeated the bills because of the peculiar majorities required for passage. (See Table II.) In fact, according to one Institute of Education report, "between 1919 and 1948, only three school bond contests passed the necessary two-thirds majority. At four consecutive elections held in the years 1959 to 1961, six bonds proposals were defeated, five of them by votes ranging from 65.42 to 66.27 [per cent] in favor of passage."¹⁶ This evidence suggests that, instead of revolting against bond issues, the public could be considered to have become increasingly won over to their necessity or usefulness.

Although Wells is accurate in his assessment for these three years in one particular state, the majority of the nation's school districts from 1968 to the present

Table II: California Bond Election Results

Year	% Passed	% Failed
1968-9	35.7	64.3
1967-8	45.1	54.9
1966-7	41.1	58.9

**Same Bond Election Results If Only
A Majority Vote Needed**

Year	% Passed	% Failed
1968-9	88.1	11.9
1967-8	90.3	9.7
1966-7	76.8	23.2

Source: E. Wells, "School Tax and Bond Issues Are Defeated By Voters," *California Teachers Association Journal* 66: 33-5, January, 1970, p. 35.

have consistently voted down tax and bond proposals, at an ever increasing rate.¹⁷ Defenders of the two-thirds rule apparently believe that it protects property owners from irresponsible debt increases and subsequent property tax increases. Those who extend the one-man, one-vote principle to bond elections argue that there are many other available safeguards for the general public interest.

WHO ARE THE VOTERS?

The next focal point for considering the taxpayers' revolt against the higher cost of education is that these votes are often cast in elections restricted to property owners.¹⁸ Thus, special property qualifications for eligibility in numerous tax and bond elections in Florida, Alaska, Colorado, Idaho, Louisiana, New Mexico, Texas and Utah distort the results which might have been obtained from a cross section of all normally eligible voters in any other election for state or national office holders. Some argue that if apartment building dwellers with children had been allowed to vote in these elections, they might have tipped the scale and won the election. However, the argument here again is very confusing because of conflicting evidence concerning children per apartment block versus the number of children in single-family dwellings. In the past it was generally believed that *far more children* inhabited apartments per family unit than lived in single-family dwellings and that therefore bond issues defeated by home owners would have been overturned if the apartment dwellers had not been excluded from voting by improper laws. In fact, evidence now shows¹⁹ that far more children *per family* come from single dwellings than from large apartment blocks, which frequently house only families without school-age children. It is possible, therefore, that bond and tax defeats would have multiplied if the excluded electorate were allowed to vote.

Still another factor in this complex mix of taxpayers' revolts against higher costs of education must be considered. It is claimed²⁰ that families who move into an area only for a short period may vote for bond issues because they know they will not be paying for

¹³ *School and Community*, January, 1972, p. 11.

¹⁴ *Ibid.*

¹⁵ See Elmer Wells, "School Tax and Bond Issues are Defeated by Voters," *California Teachers Association Journal*, January, 1970, pp. 33-35.

¹⁶ *Ibid.*

¹⁷ *Bond Buyer*, December 13, 1971, and N.E.A., "Results of Bond Elections For Public School Purposes."

¹⁸ Senator Gant, *School and Community*, January, 1972, pp. 10-11. See especially the elaborate requirements for all 50 states concerning ownership of property, school age children, etc., as criteria for eligibility for voting in school bond elections.

¹⁹ *The New York Times*, December 5, 1971. "Apartments Get Prime Tax Rating." This article cites an 87-page report by Cristian O. Kristenson and John M. Levy of the Westchester New York Planning Department, which deals with the relationship between housing and school taxes.

²⁰ This was a suggestion made by Peter D. Veillette of the Research Department of N.E.A. in a lengthy discussion with me and reflected a point of view he had found voters held in numerous areas.

them later, whereas local property owners who know they will stay are exercising a genuine objection to a heavier burden placed on their shoulders by mobile or itinerant families who enlarge the schools but not the long-term tax pool. Each of these claims has factual bases. Inequities are numerous and obvious and local property tax assessment is clearly an outmoded, inefficient and expensive basis for school finance which on almost all grounds should be dropped.

Perhaps by far the most important factor in bond and tax defeats is the taxpayer's recognition that he is not getting his money's worth on any level. The regressive nature of the local property tax structure which demands relatively higher taxes from the poor than from the rich²¹ and relatively more from the lower middle class than from the upper middle class is well known. The aspects of this problem with regard to the shrinking tax base of the inner city where ever higher taxes are demanded have been well worked over. But suburban-city inequities, as far as education taxes are concerned, may not be realized, and these form a potent ground of taxpayers' antagonisms to higher tax and bond requests.

The suburban property owner makes fewer welfare payments, supports fewer civic buildings, roads, police, drug officers and housing subsidies with his taxes; thus a far larger portion of his tax dollar goes directly to schools than the tax dollar of the taxpayer in the inner city. The ironic and iniquitous result of this "municipal overburden" is that the inner city taxpayer who pays more for school taxes gets far less for the education of his children than the taxpayer in suburbia where, despite lower taxes, a larger amount of the tax dollar is apportioned directly to education. This dramatic irony has become another and perhaps the strongest educational issue behind the widespread taxpayers' revolt.²² As John Silard pointed out, "the average of the high-low disproportion" in net per child annual expenditure between rich and poor districts "is almost 6 to 1 in the eight largest states where nearly half the nation's population resides."²³

However, in the final analysis, the crucial objection

of the vast majority of voters, according to a series of Gallup and other polls, is simply an objection to higher taxes in general. Decades of rising inflation coupled with steadily increasing taxes on all levels have led to a blind rage against being taxed any further by anyone, and the merits of particular cases for this or that school district are often not taken into account at all in voter appraisals gathered after elections. Thus, if the war in Vietnam were listed on a local property tax ballot, like almost any other issue, it would have been voted down long since because of the general resentment against taxes. It is the distance from the public of state and federal governments and the complexity of the legislation the voters are asked to endorse that allows the national and state governments to escape the voters' vengeance which is effectively exercised on a local level. Many have ventured to argue that any national piece of legislation, if put on the local ballot in the form of an increased tax, would fail. Although this is probably true, the effect upon the schools of what may be a random act of tax resentment has been profound.

Writing in *Nations Schools*, A. Cohodes is right in saying:

Nobody can be pleased about [the defeat of school bond issues], not even the people who vote no. Such defeats depress the staff, demoralize the superintendent, and embarrass the school board. . . . Bond issue failures do not help the kids either, a fact that is ignored or overlooked by many who oppose them. The kids wind up with underpaid teachers who feel sorry for themselves or with understaffed maintenance departments that do a shabby job. Or with stuffy classrooms that encourage daydreams.²⁴

Property taxpayers' associations that wish to assess the success of their revolts against bonds and tax levies might dwell on the statistics compiled by the N.E.A.²⁵ to show how the nation's school districts economize. Reductions occasioned by the failures of tax levies extend from teachers, substitute teachers, specialized teachers and professional staff to cuts in school buildings, maintenance, capital outlays, libraries, teaching materials and equipment caused primarily by bond failures. New educational programs added in the past 20 years were the first to go: art, theater, music, typing, field trips, enrichment programs, languages, swimming, special reading, counseling and testing. And many savings appear to have been gained by cutting down the school year in numerous districts by from 12 days to over a month, and by forcing double sessions.

(Continued on page 36)

Robert Boyden Lamb, formerly a lecturer at the London School of Economics, has written two novels and three documentaries for BBC television. He is now working on a book on Lockheed and the Penn Central Railroad as examples of situations that led to government crisis legislation.

²¹ *The New York Times Magazine*, April 16, 1972. Philip M. Sterns, "Uncle Sam's Welfare Program for the Rich."

²² John Silard, "Major Unresolved Issues Requiring Illumination in the Wake of Serrano." Paper delivered at the Fifteenth National Conference on School Finance (New York City, March 22, 1972), pp. 2-3. "In a substantial number of states, the range of high and low expenditure (per-child between richest and poorest localities) exceeds a factor of 3 or 4 to 1 and in as many as 9 states, it exceeds a factor of 5 to 1. The two worst states are Texas (high \$5,334-low \$264) and Wyoming (\$14,554-\$618), where the disproportions exceed 20 to 1. But California, 4.2 to 1 (\$2,414-\$569), Illinois, 5.9 to 1 (\$2,295-\$391), are still disturbing."

²³ *Ibid.*

²⁴ A. Cohodes, "School Architects Struggle Through Bond Issue Defeats," *Nations Schools*, May, 1970, p. 22.

²⁵ N.E.A. Publication, *Summary of Reports on Financially Induced Cutbacks in Staff Programs and Services*, September, 1971.

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THE COSTS OF INNOVATION

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factor, the computer is still too expensive for this to be a cost-effective program. Educationally useful computer time is simply not yet available to schools on an economical basis. The Philadelphia program in 1968 served some 600 pupils in two subjects at four schools at a cost of \$1.3 million. The educational system would gain from the kind of efforts undertaken by the space programs and by private industry to develop practicable computer and software packages for educational purposes. Until education receives a national commitment, the chances of implementing CAI on a large scale are slim.

Team-teaching and the increased use of para-professionals are other strategies by which it was hoped to forward schools' objectives. Systematic experimentation with these techniques, however, has been minimal. For every piece of evidence suggesting that use of new staffing patterns results in more effective teaching, there is other research concluding that increasing the teacher-pupil ratio makes no significant difference. One writer notes the existence of "evidence that small decreases in class size represent nothing more than token gifts to teacher welfare."⁸ What does emerge from the literature dealing with the teacher's impact on educational quality is that this important variable needs more careful scrutiny in terms of specific objectives.

The Coleman Report finding that teachers' scores on a verbal skills test correlate with pupil achievement has resulted in attention to this dimension of teachers' competency, at least in theory. Since teachers' salaries represent about 70 per cent of current operating expenditures for elementary and secondary schools, innovations which increase teachers' effectiveness are particularly appealing.⁹ Changes in the reward system, to attract and retain different types of teachers, would be inexpensive and yet would offer the possibility of a high pay-off. Since verbal scores seem to be one area correlated with student achievement, innovations aimed at changing the composition of the teacher cadre to improve its verbal abilities would be welcome. Experimentation with salary policies is virgin territory that should be immediately explored.¹⁰

The anticipated outcomes—providing a greater information base for students and staff alike—from team-

teaching and the use of para-professionals are also not clearly visible. Systems adopting these two strategies have probably done so with little clarity or unanimity about the purposes of these changes. Thus, the use of para-professionals has been justified in terms of reducing class size, reducing professional costs, and introducing more "relevant" adults into the classroom. Research does not specify clearly which, if any, of these strategies has been effective in terms of reducing costs, increasing achievement, or both. There are many advocates for these innovations, but hard data on the cost and value added of these services are not available.

Program reorganization can address itself to new patterns of grouping, such as ungraded systems, or can attempt to deal with more basic aspects of reorganization of education and with the questions of the appropriate student-age for entry into school. Early childhood education efforts are programs concerned with raising scholastic achievement by introducing children into a fructifying learning environment at an earlier age than the currently compulsory ages. The prestigious Committee on Economic Development has publicly supported preschool educational programs as a most promising innovative area.¹¹ "Experimental work with younger children over the last decade in many of the nation's greatest cities . . . quickly established the value of these pre-school programs."¹² Certainly, here as well as elsewhere, we know little about what actually can be expected of participants in various programs.

Nevertheless, we are gaining more information about specific outcomes and we are beginning to gear up our capacity to assess other educational results, because of such large-scale experiments as the Headstart and Follow-Through programs. To extend school services down to 20 per cent of the three- and four-year-old population would cost approximately \$1 billion.¹³ Such determined efforts to prepare the child for school promise much in the way of increased educational effectiveness and efficiency.

In Philadelphia, we have experimented with several new curricular instructional programs that have yielded valuable data on educational outcomes. For example, the saleable vocational skills or Career Development Program, a voluntary Saturday class designed to reinforce skill training, demonstrated that students in the program significantly improve their skills, are more likely to gain employment upon graduation, and have a better attitude toward schoolwork than a control group of children who did not participate in the program. The Career Development Program costs for 1971-1972 are \$145.5 thousand. Benefits might be measured in anticipated future income earnings.

Our Improved Reading Skills project utilizes read-

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⁸ Charles S. Benson, *op. cit.*, p. 60.

⁹ Henry M. Lewin, "A Cost-Effective Analysis of Teacher Selection," *The Journal of Human Resources*, Vol. V, No. 1 (Winter, 1970), pp. 24-33.

¹⁰ *Ibid.*

¹¹ Research and Policy Committee of the Committee for Economic Development, *Innovation in Education: New Directions for the American School* (July, 1968), p. 35.

¹² H. Thomas James, *op. cit.*, pp. 15-16.

¹³ *Ibid.*, p. 18.

CURRENT DOCUMENTS

Serrano v. Priest, 1971

On August 30, 1971, the Supreme Court of California ruled that the California system of financing public schools by means of local property taxes was discriminatory and unconstitutional, and returned the decision to the lower courts for a trial on the facts of unequal school financing. Excerpts from the Serrano v. Priest decision¹ follow:

[1] We are called upon to determine whether the California public school financing system, with its substantial dependence on local property taxes and resultant wide disparities in school revenue, violates the equal protection clause of the Fourteenth Amendment. We have determined that this funding scheme invidiously discriminates against the poor because it makes the quality of a child's education a function of the wealth of his parents and neighbors. Recognizing as we must that the right to an education in our public schools is a fundamental interest which cannot be conditioned on wealth, we can discern no compelling state purpose necessitating the present method of financing. We have concluded, therefore, that such a system cannot withstand constitutional challenge and must fall before the equal protection clause.

Plaintiffs, who are Los Angeles County public school children and their parents, brought this class action for declaratory and injunctive relief against certain state and county officials charged with administering the financing of the California public school system.

The complaint sets forth three causes of action. The first cause alleges in substance as follows: Plaintiff children attend public elementary and secondary schools located in specified school districts in Los Angeles County. This public school system is maintained throughout California by a financing plan or scheme which relies heavily on local property taxes and causes substantial disparities among individual school districts in the amount of revenue available per pupil for the districts' educational programs. Consequently, districts with smaller tax bases are not able to spend as much money per child for education as districts with larger assessed valuations.

It is alleged that "As a direct result of the financing scheme * * * substantial disparities in the quality and extent of availability of educational opportunities exist and are perpetuated among the several school districts of the State * * *

In the second cause of action, plaintiff parents, after incorporating by reference all the allegations of the first cause, allege that as a direct result of the financing scheme they are required to pay a higher tax rate than taxpayers in many other school districts in order to obtain for their children the same or lesser educational opportunities afforded children in those other districts.

In the third cause of action, after incorporating by reference all the allegations of the first two causes, all plaintiffs allege that an actual controversy has arisen and now exists between the parties as to the validity and constitutionality

of the financing scheme under the Fourteenth Amendment of the United States Constitution and under the California Constitution.

I

We begin our task by examining the California public school financing system which is the focal point of the complaint's allegations. At the threshold we find a fundamental statistic—over 90 per cent of our public school funds derive from two basic sources: (a) local district taxes on real property and (b) aid from the State School Fund.

By far the major source of school revenue is the local real property tax. Pursuant to article IX, section 6 of the California Constitution, the Legislature has authorized the governing body of each county, and city and county, to levy taxes on the real property within a school district at a rate necessary to meet the district's annual education budget. The amount of revenue which a district can raise in this manner thus depends largely on its tax base—i.e., the assessed valuation of real property within its borders. Tax bases vary widely throughout the state; in 1969–1970, for example, the assessed valuation per unit of average daily attendance of elementary school children ranged from a low of \$103 to a peak of \$952,156—a ratio of nearly 1 to 10,000.

The other factor determining local school revenue is the rate of taxation within the district. Although the Legislature has placed ceilings on permissible district tax rates, these statutory maxima may be surpassed in a "tax override" election if a majority of the district's voters approve a higher rate. Nearly all districts have voted to override the statutory limits. Thus the locally raised funds which constitute the largest portion of school revenue are primarily a function of the value of the realty within a particular school district, coupled with the willingness of the district's residents to tax themselves for education.

Most of the remaining school revenue comes from the State School Fund pursuant to the "foundation program," through which the state undertakes to supplement local taxes in order to provide a "minimum amount of guaranteed support to all districts * * *." With certain minor exceptions, the foundation program ensures that each school district will receive annually, from state or local funds, \$355 for each elementary school pupil and \$488 for each high school student.

The state contribution is supplied in two principal forms. "Basic state aid" consists of a flat grant to each district of \$125 per pupil per year, regardless of the relative wealth of the district. "Equalization aid" is distributed in inverse proportion to the wealth of the district.

¹ 5 Calif. 3rd 584; 96 Cal. Rptr. 601.

To compute the amount of equalization aid to which a district is entitled, the State Superintendent of Public Instruction first determines how much local property tax revenue would be generated if the district were to levy a hypothetical tax at a rate of \$1 on each \$100 of assessed valuation in elementary school districts and \$.80 per \$100 in high school districts. To that figure, he adds the \$125 per pupil basic aid grant. If the sum of those two amounts is less than the foundation program minimum for that district, the state contributes the difference. Thus, equalization funds guarantee to the poorer districts a basic minimum revenue, while wealthier districts are ineligible for such assistance.

An additional state program of "supplemental aid" is available to subsidize particularly poor school districts which are willing to make an extra local tax effort. An elementary district with an assessed valuation of \$12,500 or less per pupil may obtain up to \$125 more for each child if it sets its local tax rate above a certain statutory level. A high school district whose assessed valuation does not exceed \$24,500 per pupil is eligible for a supplement of up to \$72 per child if its local tax is sufficiently high.

Although equalization aid and supplemental aid temper the disparities which result from the vast variations in real property assessed valuation, wide differentials remain in the revenue available to individual districts and, consequently, in the level of educational expenditures. For example, in Los Angeles County, where plaintiff children attend school, the Baldwin Park Unified School District expended only \$577.49 to educate each of its pupils in 1968-1969; during the same year the Pasadena Unified School District spent \$840.19 on every student; and the Beverly Hills Unified School District paid out \$1,231.72 per child. The source of these disparities is unmistakable: in Baldwin Park the assessed valuation per child totaled only \$3,706; in Pasadena, assessed valuation was \$13,706; while in Beverly Hills, the corresponding figure was \$50,885—a ratio of 1 to 4 to 13. Thus, the state grants are inadequate to offset the inequalities inherent in a financing system based on widely varying local tax bases.

Furthermore, basic aid, which constitutes about half of the state educational funds, actually widens the gap between rich and poor districts. Such aid is distributed on a uniform per pupil basis to all districts, irrespective of a district's wealth. Beverly Hills, as well as Baldwin Park, receives \$125 from the state for each of its students.

For Baldwin Park the basic grant is essentially meaningless. Under the foundation program the state must make up the difference between \$355 per elementary child and \$47.91, the amount of revenue per child which Baldwin could raise by levying a tax of \$1 per \$100 of assessed valuation. Although under present law that difference is composed partly of basic aid and partly of equalization aid, if the basic aid grant did not exist, the district would still receive the same amount of state aid—all in equalizing funds.

For Beverly Hills, however, the \$125 flat grant has real financial significance. Since a tax rate of \$1 per \$100 there would produce \$870 per elementary student, Beverly Hills is far too rich to qualify for equalizing aid. Nevertheless, it still receives \$125 per child from the state, thus enlarging the economic chasm between it and Baldwin Park.

II

[5] Having outlined the basic framework of California school financing, we take up plaintiffs' legal claims. Preliminarily, we reject their contention that the school financing system violates article IX, section 5 of the California Constitution, which states, in pertinent part: "The Legisla-

ture shall provide for a system of common schools by which a free school shall be kept up and supported in each district at least six months in every year * * *."

III

[10] Having disposed of these preliminary matters, we take up the chief contention underlying plaintiffs' complaint, namely that the California public school financing scheme violates the equal protection clause of the Fourteenth Amendment to the United States Constitution.

As recent decisions of this court have pointed out, the United States Supreme Court has employed a two-level test for measuring legislative classifications against the equal protection clause. "In the area of economic regulation, the high court has exercised restraint, investing legislation with a presumption of constitutionality and requiring merely that distinctions drawn by a challenged statute bear some rational relationship to a conceivable legitimate state purpose.

"On the other hand, in cases involving 'suspect classifications' or touching on 'fundamental interests,' the court has adopted an attitude of active and critical analysis, subjecting the classification to strict scrutiny. Under the strict standard applied in such cases, the state bears the burden of establishing not only that it has a *compelling* interest which justifies the law but that the distinctions drawn by the law are *necessary* to further its purpose."

A

Wealth as a Suspect Classification

In recent years, the United States Supreme Court has demonstrated a marked antipathy toward legislative classifications which discriminate on the basis of certain "suspect" personal characteristics. One factor which has repeatedly come under the close scrutiny of the high court is wealth. "Lines drawn on the basis of wealth or property, like those of race, are traditionally disfavored."

Plaintiffs contend that the school financing system classifies on the basis of wealth. We find this proposition irrefutable. As we have already discussed, over half of all educational revenue is raised locally by levying taxes on real property in the individual school districts. Above the foundation program minimum (\$355 per elementary student and \$488 per high school student), the wealth of a school district, as measured by its assessed valuation, is the major determinant of educational expenditures. Although the amount of money raised locally is also a function of the rate at which the residents of a district are willing to tax themselves, as a practical matter districts with small tax bases simply cannot levy taxes at a rate sufficient to produce the revenue that more affluent districts reap with minimal tax efforts.

Defendants vigorously dispute the proposition that the financing scheme discriminates on the basis of wealth. Their first argument is essentially this: through *basic aid*, the state distributes school funds equally to all pupils; through *equalization aid*, it distributes funds in a manner beneficial to the poor districts. However, state funds constitute only one part of the entire school fiscal system. The foundation program partially alleviates the great disparities in local sources of revenue, but the system as a whole generates school revenue in proportion to the wealth of the individual district.

Defendants also argue that neither assessed valuation per pupil nor expenditure per pupil is a reliable index of the wealth of a district or of its residents. The former figure is untrustworthy, they assert, because a district with a low total assessed valuation but a miniscule number of students will have a high per pupil tax base and thus appear "wealthy."

Defendants imply that the proper index of a district's wealth is the total assessed valuation of its property. We think defendants' contention misses the point. The only meaningful measure of a district's wealth in the present context is not the absolute value of its property, but the ratio of its resources to pupils, because it is the latter figure which determines how much the district can devote to educating each of its students.

Finally, defendants suggest that the wealth of a school district does not necessarily reflect the wealth of the families who live there. The simple answer to this argument is that plaintiffs have alleged that there is a correlation between a district's per pupil assessed valuation and the wealth of its residents and we treat these material facts as admitted by the demurrers.

More basically, however, we reject defendants' underlying thesis that classification by wealth is constitutional so long as the wealth is that of the district, not the individual. We think that discrimination on the basis of the district wealth is equally invalid. The commercial and industrial property which augments a district's tax base is distributed unevenly throughout the state. To allot more educational dollars to the children of one district than to those of another merely because of the fortuitous presence of such property is to make the quality of a child's education dependent upon the location of private commercial and industrial establishments. Surely, this is to rely on the most irrelevant of factors as the basis for educational financing.

Defendants, assuming for the sake of argument that the financing system does classify by wealth, nevertheless claim that no constitutional infirmity is involved because the complaint contains no allegation of purposeful or intentional discrimination.

* * *

We think that the whole structure of this argument must fall for want of a solid foundation in law and logic.

* * *

Finally, even assuming arguendo that defendants are correct in their contention that the instant discrimination based on wealth is merely *de facto*, and not *de jure*, such discrimination cannot be justified by analogy to *de facto* racial segregation. Although the United States Supreme Court has not yet ruled on the constitutionality of *de facto* racial segregation, this court eight years ago held such segregation invalid, and declared that school boards should take affirmative steps to alleviate racial imbalance, however created. Consequently, any discrimination based on wealth can hardly be vindicated by reference to *de facto* racial segregation, which we have already condemned. In sum, we are of the view that the school financing system discriminates on the basis of the wealth of a district and its residents.

B

Education as a Fundamental Interest

But plaintiffs' equal protection attack on the fiscal system has an additional dimension. They assert that the system not only draws lines on the basis of wealth but that it "touches upon," indeed has a direct and significant impact upon, a "fundamental interest," namely education. It is urged that these two grounds, particularly in combination, establish a demonstrable denial of equal protection of the laws. To this phase of the argument we now turn our attention.

* * *

We . . . begin by examining the indispensable role which education plays in the modern industrial state. This role, we believe, has two significant aspects: first, education

is a major determinant of an individual's chances for economic and social success in our competitive society; second, education is a unique influence on a child's development as a citizen and his participation in political and community life.

* * *

The fundamental importance of education has been recognized in other contexts by the United States Supreme Court and by this court. These decisions—while not *legally* controlling on the exact issue before us—are persuasive in their accurate factual description of the significance of learning.

The classic expression of this position came in *Brown v. Board of Education* (1954) 347 U.S. 483, which invalidated *de jure* segregation by race in public schools. The high court declared: "Today, education is perhaps the most important function of state and local governments. Compulsory school attendance laws and the great expenditures for education both demonstrate our recognition of the importance of education to our democratic society. It is required in the performance of our most basic public responsibilities, even service in the armed forces. It is the very foundation of good citizenship. Today it is a principal instrument in awakening the child to cultural values, in preparing him for later professional training, and in helping him to adjust normally to his environment. In these days, it is doubtful that any child may reasonably be expected to succeed in life if he is denied the opportunity of an education. Such an opportunity, where the state has undertaken to provide it, is a right which must be made available to all on equal terms."

The twin themes of the importance of education to the individual and to society have recurred in numerous decisions of this court. Most recently in *San Francisco United School Dist. v. Johnson*, where we considered the validity of an antibusing statute, we observed, "Unequal education, then, leads to unequal job opportunities, disparate income, and handicapped ability to participate in the social, cultural, and political activity of our society."

When children living in remote areas brought an action to compel local school authorities to furnish them bus transportation to class, we stated: "We indulge in no hyperbole to assert that society has a compelling interest in affording children an opportunity to attend school. This was evidenced more than three centuries ago, when Massachusetts provided the first public school system in 1647. And today an education has become the *sine qua non* of useful existence. . . . In light of the public interest in conserving the resource of young minds, we must unsympathetically examine any action of a public body which has the effect of depriving children of the opportunity to obtain an education."

* * *

We are convinced that the distinctive and priceless function of education in our society warrants, indeed compels, our treating it as a "fundamental interest."

First, education is essential in maintaining what several commentators have termed "free enterprise democracy"—that is, preserving an individual's opportunity to compete successfully in the economic marketplace, despite a disadvantaged background. Accordingly, the public schools of this state are the bright hope for entry of the poor and oppressed into the mainstream of American society.

Second, education is universally relevant. Not every person finds it necessary to call upon the fire department or even the police in an entire lifetime. Relatively few are on welfare. Every person, however, benefits from education * * *.

(Continued on page 32)

TOWARD BETTER SCHOOLS

(Continued from page 8)

the achievement tests and examined in the research on school effectiveness. While some if not most schools attempt to "educate" students with respect to goals, aspirations and attitudes, little is known at this time about how much and what is accomplished in these efforts. This is indeed a serious gap, since it may well be the most important function the schools now serve, whether they should or not.

An equally important question is expenditures and excellence for whom? The fact that expenditure patterns for education produce greater inequalities of opportunity because less is systematically spent on those who also learn less outside of school is one of the fundamental barriers to a high quality of life in American society. Ultimately, a high quality of life must be the real test of the excellence of "education."

SCHOOL PROFESSIONAL SALARY COSTS

(Continued from page 11)

strict level. In the future, these negotiations will take place in a larger unit; regional within a state or with the state as a whole. These negotiations will have an equalizing effect on professional salaries.

(4) *New Innovations:* The emergence of such new organizational innovations as differentiated staffing, the use of paraprofessionals, the open classroom and voucher systems could lead to new alternatives to the single salary concept. The acceptance of a performance or competency-based certification of teachers could once again revive the issue of merit pay or differentiated salary for different professional tasks or levels of effectiveness.

Efforts to increase educational efficiency by means of new teaching aids such as computer-aided instruction, closed circuit television, videotape and other audiovisual aids may result in new patterns of school operation and new salary policies.

All of these factors would work against the equalization of professional salaries.

(5) *Supply and Demand of Teachers:* Prior to 1900 teachers' salaries were almost entirely dependent upon supply and demand. Much of the gain in salary level since 1945 could also be attributed to a shortage of qualified teachers. The year 1971 saw a reversal in this trend. The United States Office of Education has predicted that by the fall of 1972 the teaching market across the United States will be glutted with 19,000 more elementary and secondary teachers than positions available. They further attest that by 1978 the number of surplus teachers will rise to 93,000.

Geoffrey H. Moore of the United States Department of Labor has warned that unless drastic changes are made in public school funding and present school staffing patterns, the only alternative to a "vast army of unemployed teachers" will be to cut down on the number educated for a teaching career. The existing supply of teachers is bound to have an effect on salary policy.

All the above factors will affect decisions about professional salaries in the years to come. The year 1970 will rank with 1900 and 1945 as critical years for change in policies relating to public school professional salaries.

FINANCING SCHOOL FACILITIES

(Continued from page 14)

attitudes toward child labor were different, this cost of education, called opportunity cost by economists, was more significant. School calendars still reflect the nineteenth century method of minimizing these costs by providing long summer vacations so that children can work on farms. At the college level, foregone earnings loom large as a cost of education, exceeding, for most students, the direct costs of education paid either publicly by taxpayers or privately through tuition charges.

Second, capital costs—the value of the services currently rendered by land, buildings and equipment—are not accurately reflected in the educational statistics. Annual capital outlay, as discussed above, measures what is spent for the acquisition of land, construction of new buildings and the purchase of equipment. This spending is an addition to the stock of educational capital and is not at all identical to the value of the services rendered during a year by the total stock of educational capital.¹¹ These services should be equated to the dollar magnitude of the annual depreciation of educational capital plus an annual interest charge reflecting the value of the stock of educational capital had it been used in some alternative way; school agencies do not, however, keep financial records in this fashion.

In essence, then, the real cost of education is the value of what society foregoes by devoting resources—the labor services of teachers, the time of students, the bricks and mortar in buildings—to the educational enterprise rather than to other uses. No one can conceive of a modern world without some resources devoted to education, but every day decisions

¹¹ The stock of educational capital used by public elementary and secondary education was valued at \$31.7 billion in 1968. This estimate was based mostly on original costs. U.S. Office of Education, *Statistics of State School Systems, 1967-68* (Washington, D.C.: U.S. Government Printing Office, 1970), p. 66. If valued at replacement costs, the aggregate amount would be considerably higher.

are made at the margin, whether or not to hire an additional teacher, to stay in school or drop out and seek employment, or to build a new school. As the decisions are made by individuals and through political processes, costs, along with perceptions of benefits, are a determining factor.

NEED FOR RESEARCH

The relationships between educational inputs (costs) and outcomes are affected by educational technology—methods of organization and teaching apart from physical capital. If these relationships were known with precision then there could be some answers to questions about the appropriate quantity of capital to use in the educational process. We would know when there was not enough, that is, when we could expect significant increases in measured outcomes (such as changes in reading proficiency) by increasing the capital input (a new school, for example) while not changing any of the other inputs. We would also know when there was too much, that is, when we could expect no significant change in any desired outcome by increasing the capital output, leaving the other inputs unchanged. Some research has been done in recent years to try to specify the relationships between educational inputs and outcomes. This is a technically difficult area of research, but one repeated conclusion is that nonschool variables, such as the family background of a pupil and his peers, are much more important than school variables, such as pupil/teacher ratios or differences in per pupil spending, in explaining differences in outcomes. One of the studies that explicitly considered the quantity of the capital input, using the age of school buildings as a proxy measure, concluded that facilities were associated with outcomes: the older the high school building the higher the dropout rate, even after controlling the analysis for the influence of a number of other variables.¹² More research along these lines is clearly desirable so that better decisions about allocating society's resources to education can be made.

Fortunately, many of the decisions to be made about educational facilities are not strictly resource allocation questions revolving around efficiency in the relationship between inputs and outcomes. They are equity questions. Equity questions can be handled through political processes without awaiting further knowledge about the nature of the educational process. When facilities in some localities are old, ugly and dehumanizing, and in others are new, inviting and supportive of good teaching, then equity answers the question about where more educational capital is needed. Only when rough equity in the distribution of educational capital is achieved, measured by criteria such as the average age of buildings and the avail-

ability of specialized facilities, libraries and gymnasiums, should it be necessary to answer the tough input/outcome questions. The problem for the 1970's will be devising new techniques for financing school facilities so as to come closer to equity in their distribution.

SERRANO V. PRIEST

(Continued from page 30)

Third, public education continues over a lengthy period of life—between 10 and 13 years. Few other government services have such sustained, intensive contact with the recipient.

Fourth, education is unmatched in the extent to which it molds the personality of the youth of society. While police and fire protection, garbage collection and street lights are essentially neutral in their effect on the individual psyche, public education actively attempts to shape a child's personal development in a manner chosen not by the child or his parents but by the state.

Finally, education is so important that the state has made it compulsory—not only in the requirement of attendance but also by assignment to a particular district and school. Although a child of wealthy parents has the opportunity to attend a private school, this freedom is seldom available to the indigent. In this context, it has been suggested that "a child of the poor assigned willy-nilly to an inferior state school takes on the complexion of a prisoner, complete with a minimum sentence of 12 years."

C

The Financing System is Not Necessary to Accomplish a Compelling State Interest

We now reach the final step in the application of the "strict scrutiny" equal protection standard—the determination of whether the California school financing system, as presently structured, is necessary to achieve a compelling state interest.

The state interest which defendants advance in support of the current fiscal scheme is California's policy "to strengthen and encourage local responsibility for control of public education." We treat separately the two possible aspects of this goal: first, the granting to local districts of effective decision-making power over the administration of their schools; and second, the promotion of local fiscal control over the amount of money to be spent on education.

The individual district may well be in the best position to decide whom to hire, how to schedule its educational offerings, and a host of other matters which are either of significant local impact or of such a detailed nature as to require decentralized determination. But even assuming *arguendo* that local administrative control may be a compelling state interest, the present financial system cannot be considered necessary to further this interest. No matter how the state decides to finance its system of public education, it can still leave this decision-making power in the hands of local districts.

The other asserted policy interest is that of allowing a local district to choose how much it wishes to spend on the education of its children:

We need not decide whether such decentralized financial decision-making is a compelling state interest, since under the present financing system, such fiscal free will is a cruel illusion for the poor school districts.

¹² Jesse Burkhead, *Input and Output in Large-City High Schools* (Syracuse: Syracuse University Press, 1967).

We cannot agree that Baldwin Park residents care less about education than those in Beverly Hills solely because Baldwin Park spends less than \$600 per child while Beverly Hills spends over \$1,200. As defendants themselves recognize, perhaps the most accurate reflection of a community's commitment to education is the rate at which its citizens are willing to tax themselves to support their schools. Yet by that standard, Baldwin Park should be deemed far more devoted to learning than Beverly Hills, for Baldwin Park citizens levied a school tax of well over \$5 per \$100 of assessed valuation, while residents of Beverly Hills paid only slightly more than \$2.

In summary, so long as the assessed valuation within a district's boundaries is a major determinant of how much it can spend for its schools, only a district with a large tax base will be truly able to decide how much it really cares about education. The poor district cannot freely choose to tax itself into an excellence which its tax rolls cannot provide. Far from being necessary to promote local fiscal choice, the present financing system actually deprives the less wealthy districts of that option.

We, therefore, arrive at these conclusions. The California public school financing system, as presented to us by plaintiffs' complaint supplemented by matters judicially noticed, since it deals intimately with education, obviously touches upon a fundamental interest. For the reasons we have explained in detail, this system conditions the full entitlement to such interest on wealth, classifies its recipients on the basis of their collective affluence and makes the quality of a child's education depend upon the resources of his school district and ultimately upon the pocketbook of his parents. We find that such financing system as presently constituted is not necessary to the attainment of any compelling state interest. Since it does not withstand the requisite "strict scrutiny," it denies to the plaintiffs and others similarly situated the equal protection of the laws.

* * *

In sum, we find the allegations of plaintiffs' complaint legally sufficient and we return the cause to the trial court for further proceedings.

RISING COSTS OF CATHOLIC SCHOOLS

(Continued from page 21)

This is a policy aimed at accommodating large families.

The 1971 Data Bank⁵ of the National Catholic Educational Association estimates that \$1.3 billion was budgeted for Catholic schools in 1970-1971, an increase of 11.20 per cent in operating expenses over 1969-1970 on the elementary level, 12.18 per cent on the secondary level for diocesan or parish schools, and 11.06 per cent for private secondary schools. Of total dollars budgeted, \$806 million was for elementary schools and \$538 million for high schools, including \$247 million for private high schools and \$291 million for parish or diocesan high schools (see Tables 1-C and 1-D).

No two Catholic schools' expenses break down in

exactly the same way, partly because expenses vary by regional location; partly because expenses may be higher or lower in different schools depending upon the vocation situation in the religious orders serving in those schools (a school that is able to have six or eight nun-teachers is going to be better off financially than one that has only two or three nuns assigned to it); and, finally, because no two parishes, no two dioceses and no two religious orders, it seems, keep the same set of books and follow the same order of educational priorities.

One of the paradoxes of American Catholicism—an authoritarian institution by most standards—is the latitude that its parishes and its various organizations, including schools, enjoy in managing their affairs—at least those of a business nature.⁶ Catholic schools are shaped, accordingly, by many more influences than is sometimes thought. The influences on parish schools, for instance, include the bishop, the diocesan chancery, pastors, teaching orders, lay boards, staffs and parent groups. This helps explain why no two Catholic schools are precisely alike, however they may seem so on the surface. It also helps explain why it is impossible to pick one school and present its budget income and expense ledgers as typical. The Data Book cited earlier does attempt to present an average break-down (see Table 1-E), but it cautions that national average figures cannot reflect the range of varied practices in the financing of Catholic schools. It says, too, that "the imprecise state of Catholic school accounting" leaves an imbalance between total income and total expenses.

Whatever the problems and whatever the accounting deficiencies, one detail is made unmistakably clear by the account books of Catholic elementary and secondary schools: the schools cannot survive in number or in size comparable to the present (to say nothing of the past) without a substantial influx of public aid. (Whether these schools should or should not receive aid—indeed, whether they should or should not survive, are questions for another article I am concerned in this article merely with the facts and mechanics of Catholic schools.)

No one is more aware of this survival problem than Catholic officials themselves, which is why there is a concerted effort from the highest ecclesiastical levels of the Catholic Church in America, through organized diocesan levels, to urge that public tax assistance to these schools be expanded from auxiliary services to direct aid of a financial kind.

Catholic authorities stress that they want this aid as a constitutional right; they also emphasize that they are not asking the state and national governments to assume the Catholic parents' role. How successful they will be is another matter. The constitutional right to operate private, church-related schools is conceded, but direct public aid in the exercising of this

⁵ See footnote 3.

⁶ This is a noteworthy point of James Gollin's book *Worldly Goods* (New York: Random House, 1971).

right immediately raises hard questions about the separation clause of the Constitution. Father Bredeweg said in his Senate testimony: "[Catholic] parents are seeking partial but significant support so that they can manage the major responsibility which is theirs on a continuing and secure basis."

But can this "significant support" be provided by

constitutional means? And if it cannot be provided, what miracle is needed to keep Catholic schools open? These questions will be answered in a definitive way in the next few years, and their answer will set educational courses in the country perhaps permanently, for public as well as private and parochial schools.

APPENDICES

The following appendices were presented by the Rev. Frank H. Bredeweg, C.S.B., as exhibits to accompany his testimony before the Senate Subcommittee on Education of the Senate Committee on Labor and Public Welfare, December 2, 1971. Father Bredeweg is Director of Special Projects of the National Catholic Educational Association. The appendices chart the numbers and localities of Catholic elementary and secondary schools in the United States, and provide such vital statistics as operating income, pupil/teacher ratios, religious and lay teacher totals. A third appendix details the types of public assistance presently being extended to Catholic schools.

APPENDIX A: INFORMATION REGARDING CATHOLIC ELEMENTARY AND SECONDARY SCHOOLS IN THE UNITED STATES

Elementary and Secondary:	1967-68	1968-69	1969-70	1970-71
Schools	12,627	12,305	11,772	11,352
Pupils	5,199,000	4,941,000	4,658,000	4,367,000
Teachers: Total	172,800	177,500	184,800	188,200
Full-Time Religious	95,200	91,000	86,200	81,900
Full-Time Lay	63,300	69,400	76,900	84,600
Part-Time Religious	5,900	7,000	8,300	8,300
Part-Time Lay	8,400	10,100	13,400	13,400
Estimated Total Operating Income	\$ 1,009 M	\$ 1,166 M	\$ 1,029 M	\$ 1,344 M
Estimated Contributed Services	\$ 424 M	\$ 434 M	\$ 429 M	\$ 413 M
Per Pupil Income	\$ 194	\$ 236	\$ 260	\$ 308
Per Pupil Contributed Services	\$ 82	\$ 88	\$ 92	\$ 95
Per Pupil Input	\$ 276	\$ 324	\$ 352	\$ 403
Elementary Only:	1967-68	1968-69	1969-70	1970-71
Schools	10,350	10,113	9,695	9,366
Pupils	4,106,000	3,860,000	3,607,000	3,359,000
Teachers: Total	119,600	121,900	125,600	126,200
Full-Time Religious	65,500	62,000	57,500	53,500
Full-Time Lay	45,400	49,100	53,800	58,400
Part-Time Religious	2,900	3,700	4,600	4,600
Part-Time Lay	5,800	7,100	9,700	9,700
Pupil/Teacher Ratio	33:1	31:1	29:1	28:1
Estimated Total Operating Income	\$ 595 M	\$ 687 M	\$ 721 M	\$ 806 M
Estimated Contributed Services	\$ 240 M	\$ 240 M	\$ 225 M	\$ 228 M
Per Pupil Income	\$ 145	\$ 178	\$ 200	\$ 240
Per Pupil Contributed Services	\$ 58	\$ 62	\$ 62	\$ 68
Per Pupil Input	\$ 203	\$ 240	\$ 262	\$ 308
Secondary Only:	1967-68	1968-69	1969-70	1970-71
Schools	2,277	2,192	2,077	1,986
Pupils	1,093,000	1,081,000	1,051,000	1,008,000
Teachers: Total	53,200	55,600	59,200	62,000
Full-Time Religious	29,700	29,000	28,700	28,400
Full-Time Lay	17,900	20,300	23,100	26,200
Part-Time Religious	3,000	3,300	3,700	3,700
Part-Time Lay	2,600	3,000	3,700	3,700
Pupil/Teacher Ratio	20:1	19:1	18:1	19:1
Estimated Total Operating Income	\$ 414 M	\$ 479 M	\$ 488 M	\$ 538 M
Estimated Contributed Services	\$ 184 M	\$ 194 M	\$ 204 M	\$ 185 M
Per Pupil Income	\$ 379	\$ 443	\$ 464	\$ 519
Per Pupil Contributed Services	\$ 168	\$ 179	\$ 194	\$ 183
Total Per Pupil	\$ 547	\$ 622	\$ 658	\$ 702

M = millions of dollars

APPENDIX B: ADDITIONAL INFORMATION BY LOCATION OF SCHOOL

Location of Schools	1967-68		1968-69		1969-70	
	No.	%	No.	%	No.	%
Elementary:						
Urban	3,126	30.2	3,085	30.5	2,996	30.9
Inner City	1,490	14.4	1,456	14.4	1,415	14.6
Suburban	2,598	25.1	2,589	25.6	2,550	26.3
Rural	3,136	30.3	2,983	29.5	2,734	28.2
	<u>10,350</u>	<u>100.0</u>	<u>10,113</u>	<u>100.0</u>	<u>9,695</u>	<u>100.0</u>
Secondary						
Urban	870	38.2	855	39.0	814	39.2
Inner City	294	12.9	278	12.7	258	12.4
Suburban	596	26.2	588	26.8	575	27.7
Rural	517	22.7	471	21.5	430	20.7
	<u>2,277</u>	<u>100.0</u>	<u>2,192</u>	<u>100.0</u>	<u>2,077</u>	<u>100.0</u>
1970-71 Enrollment & Minorities	Urban	Inner City	Suburban	Rural	Total	
Schools	3,768	1,368	2,683	3,082	10,901	
Elem. & Sec. Pupils:	1,719,200	469,700	1,264,500	754,200	4,207,600	
Spanish Surnamed	105,000	83,800	38,000	24,400	251,200	
American Negro	65,500	102,800	19,700	15,500	203,500	
Oriental American	9,400	5,300	3,500	2,900	21,100	
American Indian	2,600	1,500	5,100	7,500	16,700	
1970-71 Income and Contributed Services						
Budgeted Income (per pupil):	Urban	Inner City	Suburban	Rural		
Elementary	\$ 232	\$ 226	\$ 244	\$ 224		
Secondary—Parochial	\$ 467	\$ 425	\$ 503	\$ 445		
Secondary—Private	\$ 569	\$ 585	\$ 643	\$ 762		
Budgeted Contributed Services (per pupil):						
Elementary	\$ 64	\$ 77	\$ 64	\$ 74		
Secondary—Parochial	\$ 164	\$ 177	\$ 150	\$ 195		
Secondary—Private	\$ 201	\$ 164	\$ 200	\$ 328		

APPENDIX C: ASSISTANCE TO CATHOLIC SCHOOLS FROM LOCAL, STATE AND FEDERAL PUBLIC SOURCES

The following figures reflect the number of Catholic schools receiving assistance of one kind or another, in the form of materials provided and services rendered.*

ELEMENTARY SCHOOLS:	Urban	Inner City	Suburban	Rural	Total	Participating
Transportation	955	292	1,129	1,752	4,128	45.7%
Instructional Staff	556	523	529	841	2,449	27.1
Textbooks	661	331	462	475	1,929	21.3
Other Instructional Materials	1,870	845	1,298	1,641	5,654	62.6
School Lunch Programs	963	478	558	1,256	3,255	36.0
Health Staff	1,853	785	1,474	1,748	5,860	65.0
Use of Facilities	297	131	304	479	1,211	13.4
Other Assistance	728	300	634	621	2,283	25.3
No Assistance Received	114	30	88	71	303	3.4
Total Schools Reflected	2,964	1,180	2,204	2,689	9,037	100.0%
SECONDARY SCHOOLS:						
Transportation	276	53	228	203	760	40.8%
Instructional Staff	101	26	76	91	294	15.8
Textbooks	185	50	116	87	438	23.5
Other Instructional Materials	456	111	243	209	1,019	54.7
School Lunch Programs	246	51	133	225	655	35.1
Health Staff	387	98	211	199	895	48.0
Use of Facilities	96	31	69	85	281	15.1
Other Assistance	129	38	80	73	320	17.2
No Assistance Received	83	12	53	23	171	9.2
Total Schools Reflected	804	188	479	393	1,864	100.0%

* No dollar evaluations are available. The schools shown here may reflect relatively substantial assistance or aid which is operationally insignificant.

THE TAXPAYERS' REVOLT

(Continued from page 25)

Although federal and state cuts have been considerable, the majority of the reductions N.E.A. lists in its compilations from over 60 school (major city) districts make it clear that it is the local property taxpayers' revolt that has drawn the most blood from the schools' capital and operating funds. The case of Philadelphia, whose local funds were cut by \$63.5 million in 1972, stands out as the most drastic cut, but \$8 million from Pinellas County, Florida, and \$6.8 million from Portland, Oregon, are comparable figures.²⁶

Some areas have of course been less affected, and many suburban districts have withstood reductions that would virtually have closed down an inner city school whose program was bared nearly to the bone before the cuts took place. This raises the final and most important aspect of this taxpayers' revolt—the inequity and unconstitutionality of the local property owners' tax base as the foundation of public school finance, which since the August, 1971, *Serrano v. Priest* decision in California²⁷ has come into question. Numerous states, including Minnesota, Texas, New Jersey and others, have now ruled, as did the Supreme Court of California, that this method of school finance based on local district property tax assessments "invidiously discriminates against the poor because it makes the quality of a child's education a function of the wealth of his parents and neighbors." It is vitally important to recognize that the persistence of this inequity across the nation has been a direct function of the property taxpayer's strength, both in elections and in influencing state and federal bureaucracy.

Nevertheless, this property owners' tax revolt against paying higher costs of education ironically may have precipitated the first overwhelming alteration ever made in the basis of school finance. Federal or state governments may now legitimately insist, following the courts' decisions and the taxpayers' refusal to vote tax and bond finance for schools, that they have been given a mandate to wrest the financial power over public education out of the hands of the local districts entirely and place it in state or national hands. And this could pave the way for a comprehensive, systematic, equitable basis for public education for the first time in our nation's history.

²⁶ *Ibid.* part III, p. 2.

²⁷ *Serrano v. Priest*, 5 Calif. 3rd 584; 96 Cal. Rptr. 601; 487 p. 2nd 1241. See pp. 28ff of this issue.

THE COSTS OF INNOVATION

(Continued from page 27)

ing centers, individually prescribed instruction, per-

formance contracting and an innovative management and delivery system to focus resources on the problem of increasing reading skills. Commitment to this innovative project was demonstrated at every level of the school system. Certainly, the need for a new approach to reading was evident. In 1969, 35 per cent of the children in Philadelphia were two or more years below grade level in reading. A new Direct Purchase Plan was inaugurated to speed reading material orders. Informative newsletters were circulated throughout the entire system to insure timely and viable exchanges of information and films. The cost of this innovative reading program in 1971–1972 is \$5.6 million.

The types of innovative services which have been discussed are concerned with using existing resources to achieve the traditional educational goals of the school system. However, innovations must also be evaluated in another, more fundamental manner. Innovations which deal with those environmental and institutional questions that touch on the structure, control and operation of the school system are the radical reforms needed in education today.

Fundamental change in educational institutions must begin with reexamining, and redefining the very nature of education. The change must take the form of strategies that view education first and foremost as a process, and only secondarily as a particular content or approach.

Perceiving education in terms of "process" forces critical attention to three areas. One pivotal area is the relationship of schools to the people they serve. A second focal point is the relationships between pupils, teachers and administrators within school systems and individual schools.

Innovations aimed at structural change must begin modestly, by freeing teachers, administrators and students from the traditional, time-honored tyrannies of time, space and the system. They must open the schools to the community for dialogue and participation. The concept of shared power must be juxtaposed with professional integrity and competence. One should not underestimate the attendant problems. If we are presently having difficulty employing rational deductive methods to weigh decisions in traditional program areas, institutional restructuring problems are even more unmanageable. The federal government has only recently begun to underwrite the costs of the large-scale research needed to analyze these types of innovations systematically. Local systems lag further behind and few resources are available. Nevertheless, in Philadelphia, we have some concrete results, which with some difficulty could be assessed in value terms.

The Parkway Program in Philadelphia was one such imaginative change. Located on the Benjamin Franklin Parkway, a mile-long mall stretching from City Hall to the Art Museum, the program is pred-

icated on the hypothesis that this physical space is a giant laboratory containing everything one needs to learn about and providing a host of opportunities to become directly involved with the reality of whatever one is studying. Urban students are in daily positive contact with the city that dominates their lives. In such a setting, and with freedom and guidance, perhaps the beginning of a sense of mastery over this environment will be created.

The Parkway Program was originally financed by a grant from the Ford Foundation and by federal monies from Title III of the Elementary and Secondary Education Act of 1965. A concerted effort was made to incorporate the program into the operating budget of the school system as quickly as feasible. This was done in 1969-1970, at a level of funding roughly comparable to the annual cost per conventional high school student,¹⁴ but the Parkway Program expends virtually no money on building costs, since the program uses donated or vacant space. What is significant is that "Parkway flourishes only because of those who give their services, whether these donors are private individuals or corporations. If it were possible to compute the costs of these volunteers, no doubt Parkway would be very expensive; but it is not necessary to do so, since the larger community gives service when it would not give money."¹⁵

Typical of sweeping innovations of this type, there was less hard data available to evaluate the Parkway Program than was hoped for. However, in terms of attendance, the high number of applicants for admission, the students' advancement into higher education programs, the very low drop-out rate, and the decline of gang membership, the program is successful.¹⁶ Evaluations at Parkway are on-going and involve continuous interaction and review of teachers by students, students by teachers, and program by parents. A different set of values and educational assumptions and a different set of personal relationships is what this innovative program adds to education in Philadelphia.

A second alternative model in Philadelphia is the Pennsylvania Advancement School—a voluntary innovative program designed for seventh and eighth grade underachieving boys. The boys attend for three months and then return to their own conventional schools. A wide range of media is used to attract the attention of the students. The Advancement School attempts to convey the message of learning through media that stimulate and excite the senses

of the learner—to transform the boys from disinterested underachievers into excited, questioning learners. Acceptance, excitement and understanding are the environmental determinants. Formal research observations demonstrate remarkable changes in attitudes toward school and learning.

The Learning Center is another innovative attempt to improve learning by altering relationships. The core of the program is freedom to explore a wide range of materials with the additional resource of an adult who is a monitor, designer and facilitator of exploration and experiences. Informal studies indicate increased student excitement, enthusiasm and involvement. Other data suggest that, compared to three control groups, children from the Learning Center environments are two to three times better at problem-solving and perseverance in their work.

Other activities aimed at altering relationships within the Philadelphia school system and between it and the community at large were televised school board meetings, extensive use of the press, and special training programs for administrators. The administrative training programs were based on organizational development experiences in unfreezing a system. Incentives to acquire group process skills and information about local needs and to become immersed in community problems and debate were utilized to induce middle management staff to assume more responsibility and commitment for changing human relationships in the community.

THE PROBLEMS WE STILL CONFRONT

In the larger sense in which I have been discussing innovations, the central concern was to address the major crises in urban school systems—community demands for local control of schools and student demands for greater responsiveness to their needs. An historical review of urban school reforms of the nineteenth and early twentieth century suggests that current problems can be traced to these early efforts to protect children from the city and to remove the schools from control of the local community.¹⁷ In an effort to counter the influence of the rising tide of immigrants and to insure the "Americanization" of their children, reform efforts focused on the destruction of the ward system. This weakened local control and strengthened the professional bureaucracy, which protected the schools from the community. Only recently has the Black confrontation reversed this process.

Innovation strategies must squarely face this issue. Certainly, the best efforts of all of our educational and social institutions will be required. It will take the time, the patience, and the allocation of resources we now grant only to defense and space programs to achieve the educational revolution our society is demanding.

¹⁴ John Bremer and Michael von Moschzisker, *The School Without Walls: Philadelphia's Parkway Program* (New York: Holt, Rinehart and Winston, Inc., 1971), pp. 106-107.

¹⁵ *Ibid.*, p. 109.

¹⁶ *Ibid.*, p. 99.

¹⁷ Joel H. Spring, "Traditions in Urban School Reform," *School and Society* (November, 1971), pp. 428-429.

AMERICAN SCHOOL COSTS COMPARED

(Continued from page 3)

Table V.) However, the range among states was almost 3 to 1. At one extreme was Alaska with \$1,420 per pupil and New York with \$1,370. At the opposite pole were Mississippi with \$521 and Arkansas with \$489. As great as this range of disparities is, however, it is exceeded by the differentials within states.

Intrastate Disparities. Table VI displays the per pupil expenditure range in the 50 states (page 40). Most southern states organize their schools administratively along county lines. Their school districts are relatively large and encompass an economically heterogeneous student population. Under these conditions, the range of expenditure differences tend to be somewhat constrained. For example, in West Virginia and North Carolina the highest spending districts outspend the lower by a factor of only 1.4 to

1. By contrast, in Wyoming, the index of high to low is 23.6 to 1. In absolute dollars, this amounts to the difference between \$14,554 and \$618.

Suburb vs. City. The range of expenditure disparities within a state typically accrues to the disadvantage of large city school districts. Though based on 1967 data, Table VII (page 40) displays the difference in eight major metropolitan areas between the central city and a high spending suburban district. For example, New York City spends \$854 per pupil while Great Neck spends \$537 more. Similarly, Beverly Hills, California, spent \$1,192, while Los Angeles spent only \$601. These figures have increased absolutely in the intervening years, but the relative disparities remain.

Intra District Disparities. There have been few systematic efforts to examine the amounts spent per pupil within school districts. Districts typically do not audit expenditures on a school-by-school basis. However, in a few instances where attempts have been

TABLE IV: AVERAGE COST PER PUPIL

1957-59 (Average)		1966-67	1967-68	1968-69	1969-70	1970-71	1971-72
\$10.70	ADMINISTRATION	\$16.70	\$18.75	\$20.98	\$22.61	\$25.30	\$26.27
5.70	Professional salaries	8.30	9.40	10.53	10.40	11.50	12.07
3.30	Clerks & secretaries	4.95	5.45	6.18	6.54	7.62	7.50
1.70	Other expenditures	3.45	3.90	4.27	5.67	6.18	6.70
201.20	INSTRUCTION	342.80	364.65	404.75	449.23	506.35	535.40
170.80	Classroom teachers	280.90	298.30	328.63	364.20	404.22	425.84
16.00	Other professionals	32.10	34.65	40.82	46.04	53.67	59.94
3.10	Clerks & secretaries	7.50	8.00	9.97	11.85	14.28	15.40
2.90	Textbooks	4.95	5.10	5.58	5.75	7.19	5.93
4.60	Other teaching materials	13.70	14.75	15.08	15.66	18.84	18.56
3.80	Other expenditures	3.65	3.75	4.67	5.73	8.15	6.73
1.50	HEALTH	3.00	3.30	3.36	3.66	4.65	4.20
1.00	Professional salaries	2.20	2.50	2.97	3.21	4.00	3.50
.50	Other expenditures	.80	.80	.39	.45	.65	.70
26.00	OPERATION	41.35	42.15	45.87	50.91	58.00	60.20
14.70	Custodial salaries	22.95	24.75	26.26	28.57	32.46	31.66
4.40	Heat	6.20	6.45	6.16	7.18	6.86	7.78
4.90	Utilities other than heat	8.60	9.10	9.50	10.50	11.55	12.15
2.00	Other expenditures	3.60	1.95	3.95	4.66	7.13	8.61
9.30	MAINTENANCE	13.50	14.75	15.41	17.19	19.35	19.91
2.20	Maintenance salaries	4.70	5.50	5.51	6.45	7.14	7.81
7.10	Other expenditures	8.80	9.25	9.90	10.74	12.21	12.10
9.00	FIXED CHARGES	17.40	20.80	25.42	36.42	51.35	54.36
5.40	Retirement funds	10.75	13.85	17.98	25.31	38.00	39.16
3.60	Other expenditures	6.65	6.95	7.44	11.11	13.35	15.20
.30	OTHER SERVICES	.25	.60	.61	1.59	2.00	2.88
258.00	NET CURRENT EXPENDITURES	435.00	465.00	516.40	581.61	667.00	703.22
11.40	TRANSPORTATION	19.80	20.75	23.04	25.27	28.68	31.83
7.20	CAPITAL OUTLAY	12.50	12.60	11.25	12.75	16.01	15.41
29.50	DEBT SERVICE	47.60	48.50	50.08	54.17	64.50	54.89
306.10	TOTAL EXPENDITURES	514.90	546.85	600.77	673.80	776.19	805.35

Resource: *School Management*, January, 1972, p. 24.

made, per pupil expenditure differences between schools within a district have been uncovered.⁷ In a 1969 study of Oakland, California, Charles Hansen reported a difference of \$700 per classroom between "Hill" schools dominated by middle income white students and "Flat" schools populated primarily by Negro students.⁸ Similarly, a Syracuse University study made in three New York school districts in 1971 revealed that schools with high concentrations of low-achieving students received less money from local and state sources than did their counterparts with high proportions of high achieving students.⁹ A landmark series of audits by the General Accounting Office in 1968 led to widespread publicity of intra-district expenditure differences.¹⁰ Since that time, federal regulations surrounding the administration of ESEA Title I have required "comparability" of intra-district spending before Title I dollars are used. Though these regulations have not sufficed to eliminate such disparities, they probably have decreased the problem.

Thus, almost no matter where one looks, there are differences in the amount of money spent for children's schooling. It is difficult to argue that dollar differences always accrue to differences in quality of school services. There is too wide a range in what one dollar can buy when it comes to teachers and texts. Thus, it may be that a difference of \$100 or \$200 per pupil does not matter much. Yet differences of the order of 2 or 3 to 1 almost surely reflect differences in quality. Moreover, these differences persistently tend to favor students from relatively wealthy households.

CONCLUSION

The United States has consistently made a strong effort, unmatched currently or in the past by any other nation, to provide financial resources for public education. Nevertheless, serious problems of equity and efficiency remain. The labor intensive nature of schooling has led to greater growth in per pupil expenditures over the last decade. This is true even when inflation is discounted. However, it is not evident that the educational returns have been com-

TABLE V: CURRENT EXPENDITURE PER PUPIL IN AVERAGE DAILY ATTENDANCE, PUBLIC ELEMENTARY AND SECONDARY SCHOOLS, BY STATE

State	Expenditure per pupil in ADA, 1970-71	Percent of U.S. average	Percent change, 1960-61 to 1970-71
1	2	3	4
Alaska	\$1,429	170.3%	156.1%
New York	1,370	163.3	134.2
New Jersey	1,088	129.7	112.5
Vermont	1,088	129.7	210.9
Hawaii	1,050	125.1	214.4
Iowa ^a	1,004	119.7	160.1
Connecticut	997	118.8	117.7
Wisconsin	988	117.8	131.4
Maryland	974	116.1	131.9
Delaware	954	113.7	105.2
Rhode Island ..	951	113.3	125.9
Pennsylvania ...	948	113.0	124.1
Illinois	937	111.7	92.0
Oregon	935	111.4	104.6
Wyoming	927	110.5	80.2
Washington	873	104.1	103.0
Minnesota	864	103.0	99.1
Michigan	858	102.3	101.4
Montana	858	102.3	99.1
Arizona	825	98.3	101.7
Louisiana	808	96.3	107.7
Nevada	804	95.8	85.7
Virginia	800	95.4	190.9
California	799	95.2	74.8
Colorado	780	93.0	92.6
Ohio	778	92.7	85.7
Kansas	771	91.9	97.7
Florida	765	91.2	138.3
Maine	763	90.9	150.2
Missouri	761	90.7	116.2
Indiana	741	88.3	98.1
Massachusetts ..	735	87.6	69.0
New Hampshire .	729	86.9	98.1
New Mexico ...	713	85.0	95.9
North Dakota ..	689	82.1	83.7
South Dakota ..	688	82.0	85.9
West Virginia ..	684	81.5	151.5
Nebraska	683	81.4	96.8
South Carolina .	656	78.2	185.2
Texas	646	77.0	95.2
Utah	643	76.6	102.2
North Carolina .	642	76.5	166.4
Georgia	634	75.6	148.6
Kentucky	621	74.0	150.4
Oklahoma	605	72.1	89.1
Idaho	595	70.9	98.3
Tennessee	590	70.8	152.1
Arkansas	578	68.9	141.3
Mississippi	521	62.1	142.3
Alabama	489	58.3	98.8
United States ..	839	100.0	113.5

Source: National Education Association, Research Division. *Estimates of School Statistics, 1961-62*. Research Report 1961-R22, Washington, D.C.: the Association, 1961, p. 29, 31.

National Education Association, Research Division. *Estimates of School Statistics, 1970-71*. Research Report 1970-R15, Washington, D.C.: the Association, 1970, p. 37.

^a Includes area vocational schools and junior colleges.

⁷ Probably the most extensive effort in this vein was made in connection with a court case alleging discriminatory treatment of Negro children in the Washington, D.C., school system. In this case, the plaintiff demonstrated that more money was spent on pupils in white-dominated schools than in Negro-dominated schools. See *Hobson v. Hansen*, 369 F. Supp. 401 (D.D.C. 1967).

⁸ Charles E. Hansen, "Central City and Suburb: A Study of Equal Educational Opportunity," (unpublished doctoral dissertation, University of California, Berkeley, 1969).

⁹ Alan K. Campbell, Joel Berke and Robert Goettel, consultant report to the New York State Commission to Study the Quality, Cost and Financing of Elementary and Secondary Education, 1972.

¹⁰ "Title I of ESEA: Is it Helping Poor Children?" published by the NAACP Education and Legal Defense Fund in 1969. Reprinted in the Hearings of the U. S. Senate Select Committee on Equal Educational Opportunity, Part 17, p. 8803.

TABLE VI: INTRASTATE DISPARITIES IN PER PUPIL EXPENDITURES 1969-1970

	High	Low	High/Low Index
Alabama	\$ 581	\$344	1.7
Alaska	1,810	480	3.8
Arizona	2,223	436	5.1
Arkansas	664	343	2.0
California	2,414	569	4.2
Colorado	2,801	444	6.3
Connecticut	1,311	499	2.6
Delaware	1,081	633	1.7
District of Columbia	—	—	—
Florida	1,036	593	1.7
Georgia	736	365	2.0
Hawaii	—	—	—
Idaho	1,763	474	3.7
Illinois	2,295	391	5.9
Indiana	965	447	2.2
Iowa	1,167	592	2.0
Kansas	1,831	454	4.0
Kentucky	885	358	2.5
Louisiana	892	499	1.8
Maine	1,555	229	6.8
Maryland	1,037	635	1.6
Massachusetts	1,281	515	2.5
Michigan	1,364	491	2.8
Minnesota	903	370	2.4
Mississippi	825	283	3.0
Missouri	1,699	213	4.0
Montana Average of Groups	1,716	539	3.2
Nebraska " " "	1,175	623	1.9
Nevada	1,679	746	2.3
New Hampshire	1,191	311	3.8
New Jersey 1968-69	1,485	400	3.7
New Mexico	1,183	477	2.5
New York	1,889	669	2.8
North Carolina	733	467	1.4
North Dakota County Avgs.	1,623	686	2.3
Ohio	1,685	413	4.0
Oklahoma	2,566	342	7.5
Oregon	1,432	399	3.5
Pennsylvania	1,401	484	2.9
Rhode Island	1,206	531	2.3
South Carolina	610	397	1.5
South Dakota	1,741	350	5.0
Tennessee	700	315	2.4
Texas	5,334	264	20.2
Utah	1,515	533	2.3
Vermont	1,517	357	4.2
Virginia	1,126	441	2.6
Washington	3,406	434	7.8
West Virginia	722	502	1.4
Wisconsin	1,432	344	4.2
Wyoming	14,554	618	23.6

For New Jersey data are for FY 60 since FY 70 data were not yet available.

For Alaska data represent revenue per pupil.

For Montana and Nebraska data are high and low of average for districts grouped by size.

For North Dakota data are averages of expenditures of all districts within a county.

Data are not fully comparable between states since they are based entirely on what data the individual states included in their expenditure per pupil analysis.

Source: State Reports and Verbal contacts with State Officials. U.S. Senate Select Committee on Equal Educational Opportunity.

mensurate with this vast investment. Moreover, persistent dollar increases have begun to outstrip the overall growth of the nation's economy. Finding revenues to meet these expanding costs will become a more and more pressing problem. The likely outcome is greatly expanded federal support.

TABLE VII: COMPARISON OF PUPIL/TEACHER RATIO AND EXPENDITURES IN SELECTED CENTRAL CITIES AND SUBURBS, 1967*

City and Suburb	Pupil/Teacher Ratio	Per Pupil Expenditures
Los Angeles	27	\$ 601
Beverly Hills	17	1,192
San Francisco	26	693
Palo Alto	21	984
Chicago	28	571
Evanston	18	757
Detroit	31	530
Grosse Pointe	22	713
St. Louis	30	525
University City	22	747
New York City	20	854
Great Neck	16	1,391
Cleveland	28	559
Cleveland Heights	22	703
Philadelphia	27	617
Lower Merion	20	733

Source: Gerald Kahn and Warren A. Hughes, *Statistics of Local Public School System, 1967*, National Center for Educational Statistics, U.S. Office of Educational Statistics, U.S. Office of Education.

* Taken from *The Urban Education Task Force Report*, Wilson C. Riles, Chairman (New York: Praeger Publishers, Inc., 1970).

Even if the rising tide of school costs is stemmed, or if new sources of revenue are found, a major effort is needed to eliminate the vast inequities which pervade the nation's school resource distribution system. At present, a stream of court cases has questioned the legality of the system under the "equal protection clause" of the United States Constitution's Fourteenth Amendment. The outcome of these cases upon appeal to the Supreme Court is not yet clear. However, the widespread publicity which has attended the court's decisions portends a substantial school finance reform throughout the remainder of the 1970's.

READINGS ON SCHOOL FINANCE (Continued from page 26)

"Delay Impact: President Nixon's Message on Education Reform," *Newsweek*, March 16, 1970.

Edding, Friedrich. *Methods of Analysing Educational Outlay*. New York: UNESCO, 1966.

Edding, Friedrich and Dieter Berstecher. *International Developments of Educational Expenditure, 1950-65*. New York: Unipub, 1970.

(Continued in *Current History*, August, 1972)

THE MONTH IN REVIEW

A CURRENT HISTORY chronology covering the most important events of May, 1972, to provide a day-by-day summary of world affairs.

INTERNATIONAL

Berlin Crisis

May 12—The first state treaty between East and West Germany, dealing with transportation on railways, highways and waterways, is initialed by representatives of the 2 countries in Bonn.

Disarmament

(See also *U.S., Foreign Policy*)

May 2—The International Committee of the Red Cross (an all-Swiss group) proposes that severe restrictions on the bombing of civilians be added to the Geneva conventions of 1949 for the protection of noncombatants.

May 18—An informed source in Helsinki, site of the present U.S.-U.S.S.R. SALT talks, says that the 2 countries have agreed on a verification procedure to examine charges of violation of the proposed limitation on strategic arms.

May 26—In a televised ceremony at the Kremlin, President Nixon and Soviet Communist party leader Leonid Brezhnev sign agreements limiting the growth of American and Soviet strategic nuclear arsenals.

European Economic Community (Common Market)

(See *Ireland*)

Middle East Crisis

May 1—Mohammed Ahmed Mahgoub, Commissioner General of the office of the Arab boycott against Israel, threatens the British Vickers company with a boycott of the company's products in the Arab world, if the company builds 3 submarines for the Israeli government.

May 2—Arab voters in 12 Arab towns on the West Bank of the Jordan River, captured by Israel in 1967, turn out in large numbers to vote for new council members. 197 candidates campaigned for 108 council seats.

May 3—In an 87.8 per cent turnout, Arab voters on the Israeli-occupied West Bank oust the old leadership in 9 of the 12 towns, despite threats from Arab guerrillas to interfere with the voting process.

May 16—2 Soviet-made MIG-23 jet interceptors fly for 210 miles over the Israeli-held eastern bank of the Suez Canal.

May 30—The Popular Front for the Liberation of Palestine claims the responsibility for an attack with rifles and grenades on a crowd of passengers in the passenger terminal of Tel Aviv international airport. At least 20 persons are killed and more than 50 others are wounded, some seriously, by the gunmen, who have been identified by Israeli officials as Japanese. The men had just disembarked from an Air France jetliner.

May 31—Israeli Premier Golda Meir strongly condemns the "rejoicing" in the Arab world over the terrorist attack at Tel Aviv airport last night by 3 Japanese reportedly recruited for the purpose by the Popular Front for the Liberation of Palestine. 25 persons are now dead and 76 others are wounded, 20 seriously, as a result of the attack. Israeli leaders suggest that international airlines boycott Beirut because terrorist attacks on air travelers are frequently planned on Lebanese territory.

North Atlantic Treaty Organization (NATO)

(See also *U.S., Foreign Policy*)

May 24—The defense ministers of the North Atlantic Treaty Organization are briefed in Brussels on NATO's plans to hold an 11-nation military exercise September 14-28; this will be the largest exercise in the 23-year history of NATO.

May 29—Joseph M. A. H. Luns, Secretary General of NATO, says that the way is now open for talks between East and West European countries on cooperation and security, particularly in light of the Soviet-U.S. communiqué endorsing preparatory talks issued today in Moscow.

May 31—A communiqué issued at the end of a 2-day NATO ministerial meeting says that all NATO members except France have agreed to explore with the Soviet bloc ways to reduce air and ground military forces in Central Europe.

United Nations

May 9—U.N. Secretary General Kurt Waldheim seeks to employ the U.N. Security Council to bring about the end of the Vietnam hostilities. In a formal statement, Waldheim says: "The time has come when the full machinery of the United Nations should be used . . . first to achieve a cessation of hostilities and then to assist in the search for a peaceful and lasting settlement of the problem."

May 19—The U.N. World Health Organization rejects an application for membership from East Germany, thereby running the risk of a Soviet-bloc boycott of the U.N. Conference on the Human Environment to be held in June.

May 21—After 5 weeks of largely futile negotiation and debates, delegates from 140 countries to the U.N. Conference on Trade and Development end their conference. The conference has approved recommendations to international agencies and banks which would give preferential treatment to the world's 25 poorest countries.

War in Indochina

(See also *U.S., Foreign Policy*)

May 1—American officials in Quinhon, the provincial capital of Binh Dinh Province in the Central Highlands of South Vietnam, concede that 3 districts of the province, with almost 200,000 in population, have fallen to Communist attacks in the last 2 weeks.

May 2—U.S. sources report that the North Vietnamese forces which began an invasion across the DMZ into South Vietnamese territory March 30, have captured the provincial capital of Quangtri. The road to Hue, 32 miles to the southeast, now appears to be open to the North Vietnamese forces.

May 4—President Nguyen Van Thieu replaces Lieutenant General Hoang Xuan Lam, commander of the northern military region which included Quangtri, with General Ngo Quang Truong, the commander in the Mekong Delta region; Brigadier General Vu Van Giai, whose 3d South Vietnamese Division was routed at Quangtri, is relieved of his command. Many of the men of this 3d division are reported to be looting in the city of Hue. Allied officials estimate that more than 200,000 have left the area of Hue and have crowded into the port city of Danang.

The Vietcong secret radio in South Vietnam announces that 3 days after the capture of the city of Quangtri by North Vietnamese forces, a "provisional revolutionary administration" was set up in the captured city.

William J. Porter, American delegate to the Paris peace talks, calls for an indefinite halt to further negotiations because of "a complete lack of progress in every available channel."

May 5—The U.S. command announces that shifts in air force strength will bring the total of U.S. combat aircraft in Indochina to 1,000.

Allied officials say that the Communist offensive in the Central Highlands has been almost completely halted by American B-52 bombers.

May 7—According to an announcement by the South Vietnamese government, all civilians are to be

evacuated from the besieged city of Kontum in the Central Highlands and sent south to Pleiku.

May 8—President Richard M. Nixon announces that he has ordered the mining and blockading of North Vietnamese ports: he indicates that strikes against rail lines and bridges will also be ordered to force the North Vietnamese to agree to the return of American prisoners of war and an internationally supervised cease-fire.

May 9—Navy fighter-bombers attack "military heartland targets" near Hanoi, the nearest strikes to the capital of North Vietnam since April 16. Hanoi radio says the dike system in Namh Province has also been bombed; this report is denied by the U.S. command.

More than 200 U.S. fighter-bombers fly over a wide area of North Vietnam in heavy mining and bombing attacks. Mines are dropped at the entrance to the principal North Vietnamese ports and North Vietnam's railways are attacked.

May 11—The U.S. command says that its planes bombed military targets in Hanoi and Haiphong yesterday; the rail lines leading from China were also a target of the attacks.

An American spokesman in Pleiku reports that most of the American advisers and support troops in that city are being moved to a safer area.

May 12—American military spokesmen report that hundreds of U.S. planes struck at roads, rail lines and supply dumps over much of North Vietnam yesterday. Hanoi and Haiphong were avoided. A U.S. naval task force shelled North Vietnamese coastal defenses.

In Paris, Le Duc Tho, of North Vietnam's Politburo, rejects President Nixon's latest proposals for a settlement of the Vietnam war, but says he is prepared to resume the Paris peace talks.

The U.S. Defense Department declares that the mining of North Vietnamese harbors has been "100 per cent effective" so far.

May 14—American Marine Corps helicopters airlift 1,000 South Vietnamese Marines in a surprise attack against North Vietnamese-held areas near the captured city of Quangtri. This is the first offensive effort by South Vietnam in the northern military region in the 6 weeks of the North Vietnamese offensive.

May 15—The South Vietnamese government reports that 4,000 men of its forces have counterattacked southwest of Hue in an attempt to counter enemy preparations to mount new attacks on the city.

May 16—South Vietnamese sources report that Fire Base Bastogne, southwest of Hue, has been re-occupied by South Vietnamese troops. The base was abandoned by the South Vietnamese on April 28.

May 17—The U.S. command reports that 5 days of air strikes have cut North Vietnam's main fuel pipeline to the south.

May 21—The Saigon command reports that heavy attacks by North Vietnamese forces have stalled its attempt to relieve the besieged city of An Loc.

May 23—Military sources report that South Vietnamese forces, with the help of waves of U.S. fighter-bombers, have turned back enemy attacks near Hue for the second successive day.

American sources report that a fresh North Vietnamese force has invaded the lower Mekong Delta region of South Vietnam.

May 24—The U.S. command reports that U.S. bombers have flown more than 1,000 sorties against North Vietnam in the last 3 days, destroying roads, bridges and power stations.

May 25—The U.S. command reports that U.S. planes heavily bombed power plants and oil storage facilities in the Hanoi area.

May 26—American officials in Kontum report that North Vietnamese commandos have cut off access to the airport; the besieged city cannot receive supplies by road.

American advisers in South Vietnam report that An Loc is still holding out. South Vietnamese efforts to relieve the city, still besieged after a 7-week battle, have failed.

May 30—Saigon sources report that the South Vietnamese have failed to open roads to the besieged towns of An Loc and Kontum.

ARGENTINA

May 15—President Alejandro A. Lanusse reveals a plan under which major private companies are agreeing voluntarily to absorb a 15 per cent wage increase and to abide by voluntary price controls. Companies cooperating will receive bank credit and other benefits; those refusing to cooperate may be prosecuted on charges of speculating.

May 25—Lanusse denies that former President Juan Peron, now living in exile in Spain, has been prevented from returning to Argentina.

BANGLADESH

May 18—The U.S. diplomatic mission in Dacca becomes an embassy.

BRAZIL

May 19—In Paris, the Brazilian Minister of Finance announces that the government is purchasing a \$59-million air-traffic-control and air-defense-radar system from France, drawing on a French government loan.

BURUNDI

(See also *Zaire*)

May 30—The government radio reports that at least 50,000 people have been massacred by the rebels since the unsuccessful coup last month.

CANADA

May 2—Revenue Minister Herb Gray tells the House of Commons about the government's plans to increase controls over foreign take-overs of Canadian businesses; those involving businesses worth \$250,000 or more and those with annual revenues of more than \$3 million will be screened by the government.

May 9—The government presents a \$16.1-billion budget to the House of Commons; last year's budget was \$14.7 billion; the expanded budget is expected to create additional jobs.

CEYLON

(See *Sri Lanka*)

CHAD

May 18—The French military commander at Fort-Lamy announces that French troops have completed their mission to help the government restore stability and will begin to withdraw from Chad early in June.

CHILE

May 1—At a May Day labor rally, President Salvador Allende Gossens declares that the U.S. has imposed an economic blockade on Chile.

May 4—Some 8,000 copper mine workers strike at the Chuquicamata mine, the nation's largest nationalized copper enterprise.

CHINA, PEOPLE'S REPUBLIC OF (Communist)

May 14—Premier Chou En-lai declares that the U.S. mining of North Vietnam's ports is a serious escalation of the war.

May 15—It is reported from Hong Kong that the government, in a note to diplomatic missions in Peking, has announced the appointment of 5 new deputy foreign ministers.

CUBA

May 1—In a May Day address, Premier Fidel Castro reports that the tobacco harvest is 60 per cent better this year than last year; he also announces plans to remove some 600 million pesos from circulation (out of a total of 3 billion pesos now in circulation) to combat inflation.

May 23—In Bulgaria, Castro visits with Bulgarian Communist leader Todor Zhivkov; Castro is touring East Europe.

CYPRUS

May 5—Foreign Minister Spyros Kyprianou resigns;

he blames the Greek government, which demanded his resignation in February.

DAHOMY

May 7—Justin Ahomadegbe succeeds Hubert Maga as Chief of State; this is the first time in 12 years that one civilian leader has succeeded another without military intervention. Since May 7, 1970, the presidents of the nation's 3 regions have formed a triumvirate ruling Council; they share the leadership of the Council on a rotating basis.

EGYPT

(See also *Rumania*)

May 1—In a May Day address, President Anwar Sadat says that he has "a guarantee that within a reasonable time we shall have the power to liberate our land"; he implies that he has a guarantee to this effect from the Soviet Union, where he visited last week.

May 17—The Middle East News Agency reports that the Egyptian Foreign Ministry has asked the U.S. to reduce its personnel in its Cairo mission by half within a month. The agency also reports that the government will reduce its mission in Washington by half.

FRANCE

May 15—Phillipe Dechartre, Secretary of State for Labor, Employment and Population, resigns in the wake of a building scandal.

May 24—Premier Jacques Chaban-Delmas wins a vote of confidence; the Assembly votes 368 to 96 in his favor after 2 days of debate.

GERMANY, FEDERAL REPUBLIC OF (West)

May 10—Leaders of the 4 major parliamentary parties agree to delay for 1 week the vote on ratification of the treaties of friendship with Poland and the U.S.S.R. Conservative opposition leader Rainer Barzel asked for the delay to persuade more of the opposition not to vote against the treaties.

May 16—In a session of the Opposition Christian Democratic Union, led by Barzel, a 3-way split develops when Barzel tries to persuade his colleagues to support the treaties.

May 17—The treaties of friendship with Poland and the U.S.S.R. are approved by the *Bundestag*. 248 vote for the treaties—all from Chancellor Willy Brandt's Social Democratic party and its coalition partner, Walter Scheel's Free Democratic party. 9 vote against the Soviet treaty; 17 vote against the Polish treaty. Most Christian Democrats abstain from voting.

May 19—In the 5th major bombing incident since

May 11, 5 are hurt in the Hamburg headquarters of the Axel Springer newspaper and magazine publishing plant. It is assumed that the anarchist group Baader-Meinhof is responsible.

GREECE

(See also *Cyprus*)

May 5—Athens newspapers reveal that candidates for the Greek Orthodox priesthood must pass a political loyalty test before ordination.

ICELAND

May 3—The government assures visiting U.S. Secretary of State William P. Rogers that there are no plans to ask the U.S. to withdraw naval and air force personnel from Iceland.

INDIA

May 6—The Defense Ministry announces that India and Pakistan have ordered an immediate cease-fire in fighting in the Kaiyan area of Kashmir.

May 26—Official sources confirm the fact that Pakistani President Zulfikar Ali Bhutto will confer with Prime Minister Indira Gandhi on June 28 in New Delhi. (See also *Pakistan*.)

IRAN

(See *U.S., Foreign Policy*)

IRAQ

May 14—Two Communist party leaders are named to the Cabinet; this is the first time Communists have served in a Cabinet post since 1963, when the Baathists overthrew the regime of General Abdul Karim Kassim.

IRELAND

May 11—A count of yesterday's referendum on accession to the Common Market reveals that the treaty has been approved by a vote of better than 4 to 1. More than 70 per cent of the registered voters participated, more than have ever taken part in any referendum held in Ireland. 83 per cent of the voters favored entry.

ISRAEL

(See also *Intl, Middle East Crisis; Rumania*)

May 7—Premier Golda Meir returns to Tel Aviv after a 4-day visit to Rumania. Rumanian President Nicolae Ceausescu has reportedly discussed the Egyptian position with regard to Israel with her.

May 14—Yitzhak Ben-Aharon resigns as Secretary General of Histadrut, the general federation of labor, because of government interference in a labor dispute.

May 16—Ben-Aharon declares that he is returning to his office as Secretary General of Histadrut, after workers demonstrate nationwide in his support.

ITALY

May 9—The governing Christian Democrats, the Communists, the Socialists and the neo-Fascists gain in the parliamentary elections. The neo-Fascists and the Monarchist party, their ally, have won 56 seats in the 630-member Chamber, against the 30 they held in the old house, and 26 seats in the Senate, as compared to their previous 13 seats. The 3 other parties' gains were small.

JAPAN

May 13—Premier Eisaku Sato and Foreign Minister Takeo Fukuda meet with visiting U.S. Vice President Spiro Agnew and pledge continuing Japanese support for U.S. policies in Vietnam.

May 15—The Ryukyu Islands, including Okinawa, are returned to Japanese rule after 27 years of U.S. occupation. Agnew represents the U.S. at the ceremony marking the return.

JORDAN

May 2—It is reported from Beirut that Foreign Minister Abdullah Salah has resigned after he was beaten up by the head of the Foreign Ministry's press office, who is the brother of King Hussein's adviser on national security.

KOREA, PEOPLE'S REPUBLIC OF (North)

May 26—In an interview with *New York Times* correspondents, Premier Kim Il Sung declares that if the U.S. would withdraw its forces from South Korea the country could be peacefully reunified and relations between North Korea and the U.S. would improve.

MALAGASY REPUBLIC

May 18—President Philibert Tsiranana yields power to General Gabriel Ramanantsoa after 6 days of anti-government demonstrations.

NIGERIA

May 1—Chief of State General Yakubu Gowon ends a 5-day visit to Togo; the establishment of a Nigerian-Togolese Economic Community as "an embryo" for a larger West African economic community is announced.

PAKISTAN

May 13—Pakistan and China sign an agreement to exchange goods valued at \$320,000 in the next year, using the Silk Route, which connects Sinkiang Province with Pakistan.

May 27—A Foreign Office spokesman reveals that President Zulfikar Ali Bhutto plans to go to New

Delhi June 28 to confer with Indian Prime Minister Indira Gandhi. The repatriation of thousands of Pakistani troops who have been held in India since the Indian-Pakistani war of 1971 is to be discussed.

PERU

May 17—New television and radio censorship is established by the military government in 2 decrees restricting programming and advertising.

POLAND

(See *U.S., Foreign Policy*)

PORTUGAL

May 5—Because of a month-old parliamentary resolution declaring the existence of a "state of subversion," the government decrees new rigid controls of the press.

RHODESIA

May 23—The 50,000-word Pearce commission report is formally released in London; the British team reports that the proposed settlement of Rhodesia's 6-year-old dispute with Great Britain was rejected by the Rhodesian people "as a whole." Most of the objections came from the black community.

British Foreign Secretary Sir Alec Douglas-Home says that Britain's diplomatic and economic boycott of the government of Ian Smith will continue; "the status quo will remain."

RUMANIA

(See also *Israel*)

May 4—Israeli Premier Golda Meir arrives in Bucharest for 3 days of talks with Rumanian officials.

May 6—A senior Israeli diplomat, commenting on the talks between Israeli Premier Golda Meir and President Nicolae Ceausescu, says that Ceausescu's report of his conversations with Egyptian President Anwar Sadat about a Middle East settlement was not optimistic.

SRI LANKA

May 22—Ceylon becomes the free, democratic socialist republic of Sri Lanka, taking the ancient name of the country. Mrs. Sirimavo Bandaranaike is installed as Premier and nominates William Gopaiwa, formerly Governor-General, as the first President. The 175-year tie to the British crown is severed.

SWAZILAND

May 20—The Imbokodvo National Movement, the ruling party which strongly supports King Sobhuza, retains control of Parliament in the first general election since independence from Great Britain in 1968.

SYRIA

May 30—Returning to Damascus after a 10-day visit to China, Foreign Minister Abdel Halim Khaddam reveals that China has agreed to lend Syria \$40 million for development projects, including 2 yarn factories.

TAIWAN

May 20—Chiang Kai-shek begins his fifth 6-year term as President.

TOGO

(See *Nigeria*)

TURKEY

May 8—Ismet Inonu resigns as chairman of the Republican People's party after losing a factional dispute within the party. Bileni Ecevit, who led the faction opposed to Inonu, becomes chairman.

U.S.S.R.

(See also *U.S., Foreign Policy*)

May 1—Speaking on May Day, President Nikolai Podgorny criticizes U.S. policies in Vietnam and promises continuing aid for the Communists in Indochina.

May 9—In an official roster released by *Tass*, the Soviet press agency, General Vladimir F. Tolubko is named commander of the Soviet Union's strategic missile forces, succeeding Marshal Nikolai I. Krylov, who died in February.

May 11—The U.S.S.R. demands an end to the U.S. blockade and bombing of North Vietnam, but issues no ultimatum.

May 19—Soviet and Chinese officials meet with North Vietnam and Mongolian diplomats to discuss ways of supplying North Vietnam to defeat the U.S. blockade.

Soviet party leader Leonid I. Brezhnev reviews the international situation at a meeting of the 400-member Communist Central Committee.

May 21—*Pravda*, the party newspaper, reports that Pyotr Y. Shelest has been named a deputy premier. Shelest, who reportedly opposes the policy of accommodation with the U.S., is evidently losing his post as First Secretary of the Ukrainian Communist party and his Politburo seat.

May 22—U.S. President Richard Nixon arrives in Moscow for summit talks. (See *U.S., Foreign Policy*.)

May 25—Shelest is dismissed as leader of the Ukrainian Communist party; he is succeeded by Vladimir V. Shcherbitsky.

May 27—It is reported from Moscow that for the first time in 30 years the government has published a detailed and comprehensive (453-page) version of its current 5-year plan.

UNITED KINGDOM

Great Britain

(See also *Rhodesia*)

May 15—After a 3-hour debate on U.S.-Vietnamese policy, the House of Commons votes 260 to 237 to support the government's defense of the Nixon administration.

May 28—The Duke of Windsor, who ruled for less than a year as King Edward VIII, dies at the age of 77. The former King abdicated the throne on December 11, 1936, to marry a twice-divorced American.

Northern Ireland

May 3—Seven people are wounded as gunfire is exchanged in Northern Ireland.

May 4—William Whitelaw, Secretary of State for Northern Ireland, orders an investigation into charges that security officials have tortured Roman Catholics.

May 10—Belfast's largest department store burns to the ground after a terrorist bomb explodes inside.

May 14—In the worst weekend of violence in Belfast in 9 months, a teen-age girl is shot and killed; she is the 9th person killed this weekend.

May 17—Some 400 British troops storm the Roman Catholic Turf Lodge area of Belfast, which has been closed to policemen and soldiers, after 3 Protestants are kidnapped on the edge of the area. It is reported that hundreds of soldiers will remain on duty in the so-called "no-go" area.

May 22—In Belfast, Protestants dismantle the barricades they erected to protest the Catholic barricade of sections of Londonderry and other "no-go" areas.

May 25—William Whitelaw, Secretary of State for Northern Ireland, names an advisory commission composed of 7 Protestants and 4 Roman Catholics to serve as his Cabinet.

May 28—As violence continues, 6 people are killed in a bomb explosion in Belfast.

May 29—The Official wing of the Irish Republican Army discloses that it is suspending armed offensive operations in Ulster. The Provisional wing of the I.R.A. says that its terrorist campaign will continue until British troops are withdrawn and an amnesty for all political prisoners is declared.

UNITED STATES

Economy

May 26—The Commerce Department says the United States had a \$699-million foreign trade deficit in the month of April, the second largest monthly deficit on record.

Elections

May 2—Senator Hubert H. Humphrey (D., Minn.)

narrowly defeats Democratic Governor George C. Wallace of Alabama in the Indiana presidential primary; Senator George McGovern (D., S.D.) runs a close second to Senator Humphrey in the Ohio presidential primary.

May 9—McGovern defeats Humphrey in Nebraska's presidential preference primary; Humphrey is victorious over Wallace in the West Virginia contest.

May 15—Governor Wallace is shot while campaigning for the presidential nomination in Laurel, Md. He is expected to survive, although his legs may be permanently paralyzed. The suspected gunman is Arthur H. Bremer, a 21-year-old "loner" from Milwaukee, Wisconsin. The motivation for the shooting is obscure.

May 16—Governor Wallace receives 51 per cent of the Michigan presidential primary vote. McGovern and Humphrey trail with 27 per cent and 16 per cent, respectively. In the Maryland contest, Wallace receives 39 per cent of the vote, Humphrey, 27 per cent, and McGovern, 22 per cent.

May 23—McGovern gains decisive victories in both the Oregon and the Rhode Island presidential primary elections.

May 28—Hubert Humphrey and George McGovern take part in the first of three televised debates prior to the California primary election; they attack each other sharply.

Foreign Policy

May 5—White House press secretary Ronald L. Ziegler confirms that Henry A. Kissinger met secretly in Paris with Le Duc Tho, a member of the North Vietnam Politburo, two days before the United States and South Vietnam suspended the peace talks there.

May 7—According to a staff report of the Senate Foreign Relations Committee, the United States has pledged to provide up to \$100 million a year to support a Thai irregular army of 10,000 in Laos.

May 8—President Richard M. Nixon announces that he has ordered the mining of North Vietnamese ports and the bombing of rail lines to "keep the weapons of war out of the hands of the international outlaws" in Hanoi. He also says that "we will stop all acts of force throughout Indochina and proceed with the complete withdrawal of all troops within four months," when the enemy agrees to a return of American prisoners of war and an internationally supervised cease-fire.

May 12—Vice President Spiro Agnew arrives in Tokyo for a 4-day state visit.

May 15—The United States formally returns Okinawa to Japanese rule after 27 years.

The Pentagon discloses that rivers and waterways

have been included in U.S. mining operations in North Vietnam.

May 20—President Nixon arrives in Austria en route to the Soviet Union.

May 22—President Nixon arrives in Moscow for summit talks and meets for more than two hours with Leonid I. Brezhnev, General Secretary of the Communist party of the Soviet Union.

May 23—U.S. President Nixon and Soviet President Nikolai Podgorny sign agreements providing for cooperation in the environmental field. U.S. Secretary of State William P. Rogers and Soviet Minister of Health Boris Petrovsky sign a similar health agreement.

May 25—U.S. President Nixon and Premier Aleksei N. Kosygin sign an agreement on space cooperation including arrangements for a joint space flight in 1975. The two governments also sign a 5-year agreement setting up a permanent commission for scientific cooperation which will meet at least once a year to recommend joint projects. An accord designed to prevent incidents at sea is also reached.

May 26—Two arms agreements are signed in Moscow by President Nixon and Soviet party leader Brezhnev. The United States and the Soviet Union agree to limit themselves to two ABM sites each. Each of the sites will consist of 100 ABM's or a total of 200 ABM's for each country. ICBM's are limited to those under construction or already deployed. Construction of submarine-launched ballistic missiles on nuclear submarines is frozen at present levels. Further construction is permissible only if an equal number of older land-based ICBM's or older submarine missiles are dismantled.

A joint United States-Soviet Union trade commission is announced; the announcement reflects a failure to achieve a comprehensive trade agreement during the summit talks.

May 27—President Nixon visits Leningrad.

May 28—President Nixon delivers a televised speech to the people of the Soviet Union.

May 29—The Nixon-Brezhnev summit talks in Moscow are concluded with a joint declaration of principles and a communiqué covering the topics of peaceful coexistence, big-power restraint, summit meetings, European security, force reductions, the Middle East, Vietnam, and trade.

President Nixon departs from Moscow and pauses for a visit in Kiev en route to Iran.

May 30—The President is warmly received in Iran.

May 31—Terrorists explode 3 bombs near the tomb of Riza Shah, father of the present Shah of Iran, about an hour before President Nixon is to visit the tomb to lay a wreath there. An American adviser is injured and an Iranian woman is killed.

President Nixon arrives in Warsaw, Poland, for

a short conference with Polish Communist party leader, Edward Gierek, on his return home from his 13-day trip.

Government

May 1—The Cost of Living Council decides that henceforth all business and governmental units with 60 or fewer employees are exempt from wage and price controls. Approximately 25 per cent of the economy is affected by the ruling.

May 2—J. Edgar Hoover, director of the Federal Bureau of Investigation for 48 years, dies at the age of 77 of natural causes.

May 3—President Richard M. Nixon appoints L. Patrick Gray 3d as acting director of the Federal Bureau of Investigation.

May 5—President Nixon states that he regards abortion as "an unacceptable means of population control" and that he does not support "unrestricted abortion policies."

May 11—Secretary of the Interior Rogers C. B. Morton approves the construction of the trans-Alaska oil pipeline.

May 13—Defense Secretary Melvin R. Laird says that no more than 50,000 men will be drafted in 1972.

John Ehrlichman, the President's principal assistant for domestic affairs, tells newsmen that the President has decided not to propose major tax reforms in this election year.

May 16—John B. Connally resigns as Secretary of the Treasury. President Nixon nominates the director of the Office of Management and Budget, George P. Schultz, as Connally's successor.

May 17—A House-Senate conference committee agrees on legislation that could delay as much as 19 months the carrying out of court desegregation orders that require busing.

May 19—A bomb explodes in a Pentagon rest room; no one is injured. Federal security procedures are tightened all over Washington, D.C.

May 31—William Ruckelshaus, administrator of the Environmental Protection Agency, announces his approval of the plans of 11 states and 3 other jurisdictions for meeting the federal standards on 6 air pollutants, established under the Clean Air Act of 1970.

Labor

May 1—United States District Court Judge William B. Bryant overturns the 1969 election of W. A. Boyle as president of the United Mine Workers of America. Under the law, the Labor Department will supervise a new election.

Politics

(See *Elections*)

Supreme Court

May 15—The Supreme Court rules 7 to 0 that the Amish religious sect is exempt from state education laws that require children to attend school beyond the eighth grade.

May 22—The Court holds 5 to 4 that unanimous jury verdicts are not required for conviction in state criminal courts.

May 30—The Court rules 6 to 3 that a state may grant lower welfare benefits for child welfare, whose recipients are mostly black and Spanish-speaking, than for aged and disabled recipients, who are mostly white. According to the Court, the Texas system, which gives welfare families with dependent children 75 per cent of their estimated need and gives aged and disabled welfare recipients 95 to 100 per cent of their estimated need, does not violate either the Constitution or the federal Social Security Act. Justices William O. Douglas, William J. Brennan, Jr., and Thurgood Marshall dissent.

URUGUAY

May 16—President Juan M. Bordaberry extends for 45 days the "internal war" that was declared against the Tupamaro leftist guerrillas on April 15. Voting 68 to 56, a joint session of Congress approves the extension.

VIETNAM, DEMOCRATIC REPUBLIC OF (North)

(See *Intl. War in Indochina; U.S., Foreign Policy*)

VIETNAM, REPUBLIC OF (South)

(See also *Intl. War in Indochina*)

May 10—The South Vietnamese government radio announces that President Thieu imposed martial law on South Vietnam today.

May 14—The right of President Thieu of South Vietnam to rule by decree, subject to the approval of each decree by the Assembly, is approved by the lower house of the National Assembly of South Vietnam.

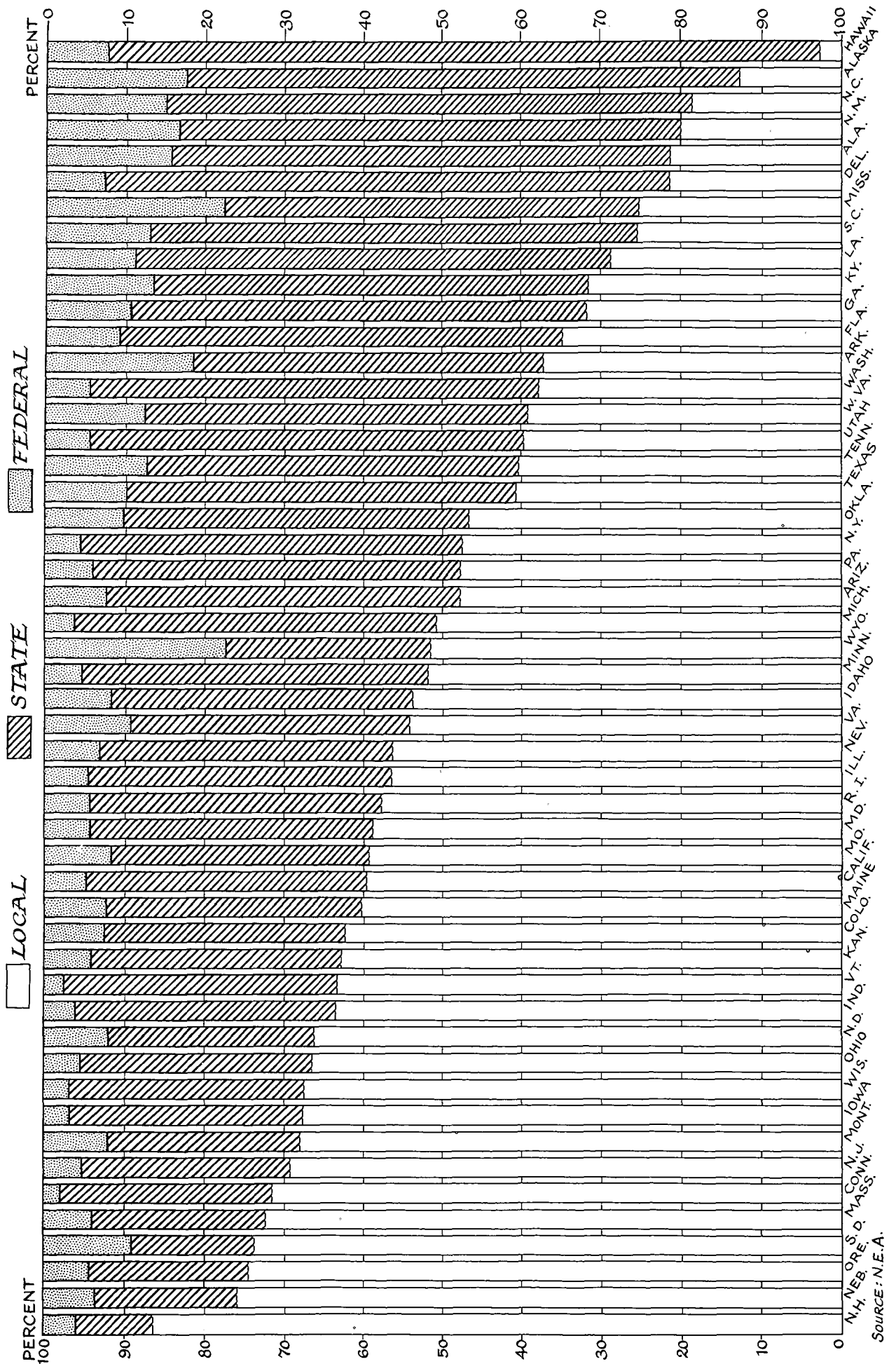
May 17—All institutions of higher learning are closed; 60,000 college and university students face conscription.

ZAIRE

May 3—The government announces that at the invitation of Burundi's President Michel Micombero, Zaire is sending troops to help the government recover stability after an attempted coup in Burundi.

May 15—President Mobutu Sese Seko authorizes the Archbishop of Kinshasa to return from Rome, ending a 4-month dispute with the Roman Catholic Church. The Archbishop opposed Mobutu's orders to replace Christian names with African names.

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